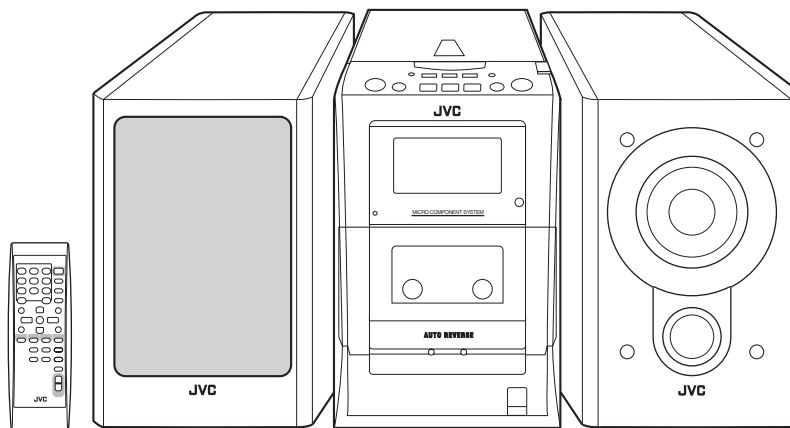


# JVC

## SERVICE MANUAL

MICRO COMPONENT SYSTEM

### UX-H35



COMPACT  
disc  
DIGITAL AUDIO

Area Suffix

A ----- Australia

### TABLE OF CONTENTS

1	PRECAUTION.....	1-3
2	SPECIFIC SERVICE INSTRUCTIONS.....	1-6
3	DISASSEMBLY .....	1-7
4	ADJUSTMENT .....	1-19
5	TROUBLESHOOTING .....	1-23

## SPECIFICATION

Amplifier	Output Power		20 W (10 W + 10 W) at 4 $\Omega$ (10% THD)
	Audio input sensitivity/Impedance (at 1 kHz) AUX		500 mV/48.75 k $\Omega$
	Speakers/Impedance		4 $\Omega$
Tuner	FM tuning range		87.50 MHz - 108.00 MHz
	AM tuning range		522 kHz - 1 629 kHz
CD player	Dynamic range		85 dB
	Signal-to-noise ratio		90 dB
	Wow and flutter		Immeasurable
Cassette deck	Frequency response Normal (type I)		50 Hz - 15 000 Hz
	Wow and flutter		0.15% (WRMS)
Speaker	Speaker units Full range		8.0 cm cone $\times$ 1
	Impedance		4 $\Omega$
	Dimensions (approx.)		135 mm $\times$ 203 mm $\times$ 190 mm (W/H/D)
	Mass (approx.)		1.7 kg each
General	Power requirement	AC IN	240 V , 50 Hz
		DC IN	12 V, 4 A
	Power consumption		35 W (at operation) 3.0 W (on standby)
	Dimensions (approx.)		412 mm $\times$ 208 mm $\times$ 275 mm (W/H/D)
	Mass (approx.)		6.5 kg

# SECTION 1

## PRECAUTION

### 1.1 Safety Precautions

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.

(5) Leakage shock hazard testing)

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

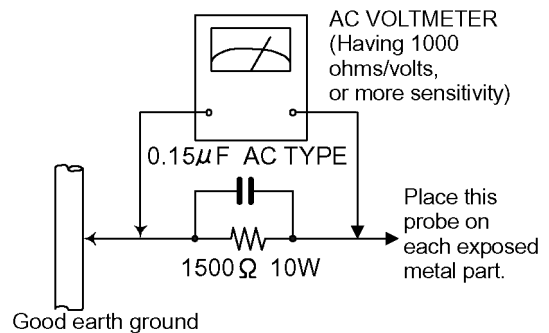
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method  
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohm 10W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an

exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



### 1.2 Warning

- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

### 1.3 Caution

**Burrs formed during molding may be left over on some parts of the chassis.**

**Therefore, pay attention to such burrs in the case of pre-forming repair of this system.**

### 1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (  $\blacksquare$  ), diode (  $\blacktriangle$  ) and ICP (  $\bullet$  ) or identified by the "  $\Delta$  " mark nearby are critical for safety.

When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

## 1.5 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.5.1 Grounding to prevent damage by static electricity

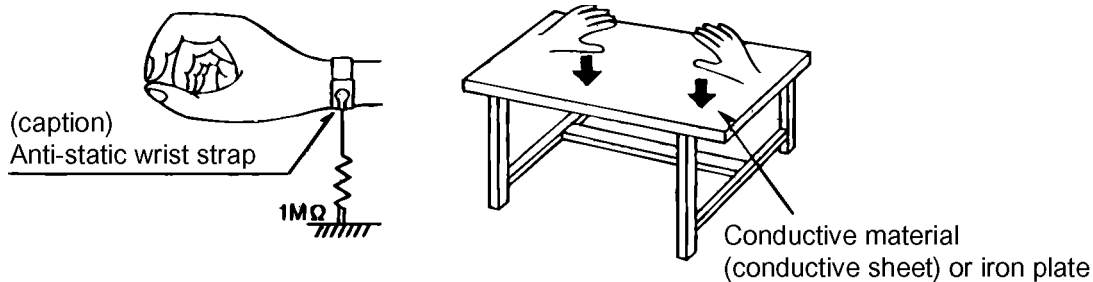
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

## 1.6 Handling the traverse unit (optical pickup)

(1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

(2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.

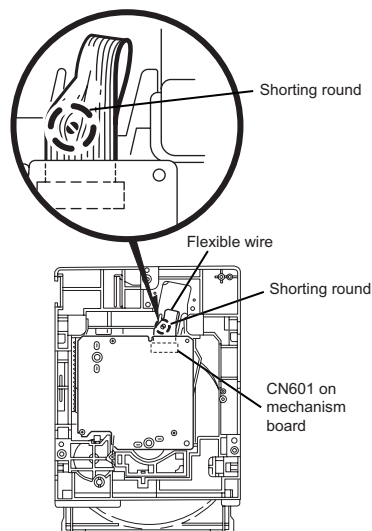
(3) Handle the flexible cable carefully as it may break when subjected to strong force.

(4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

## 1.7 Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for the CD pickup unit.**

- Apply solder to the short land sections before the flexible wire is disconnected from the connector [CN601](#) on the CD servo board. (If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the flexible wire.



## 1.8 Important for laser products

### (1) CLASS 1 LASER PRODUCT

- (2) **DANGER** : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.
- (3) **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
- (4) **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

- (5) **CAUTION** : If safety switches malfunction, the laser is able to function.
- (6) **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### ⚠ CAUTION

**Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

### VARNING

Osynlig laserstrålning är denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

### VARO

Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

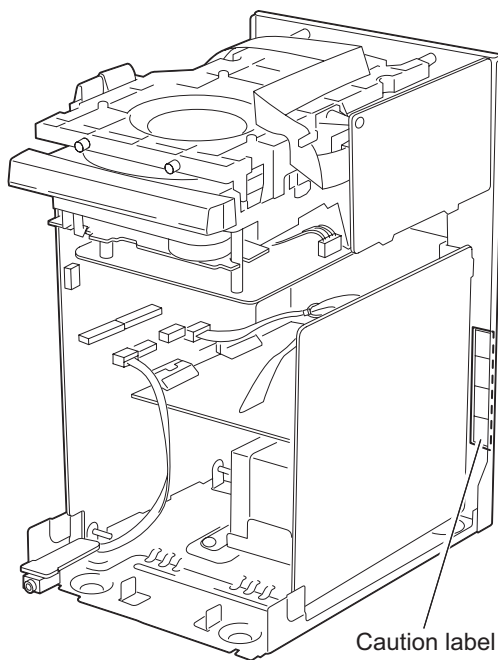
### ADVARSEL

Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### ADVARSEL

Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avsløtt. unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS



## **SECTION 2**

### **SPECIFIC SERVICE INSTRUCTIONS**

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

## SECTION 3 DISASSEMBLY

### 3.1 Main body

#### 3.1.1 Removing the rear panel

(See Fig.1,2)

- (1) From behind the body, remove the eight screws **A** attaching the rear panel.
- (2) Turning the body upside down, remove the two screws **B** attaching the rear panel, and remove.

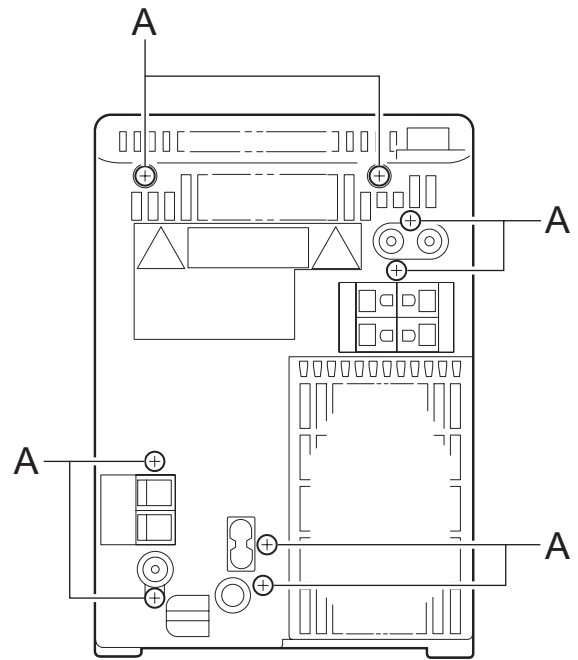


Fig.1

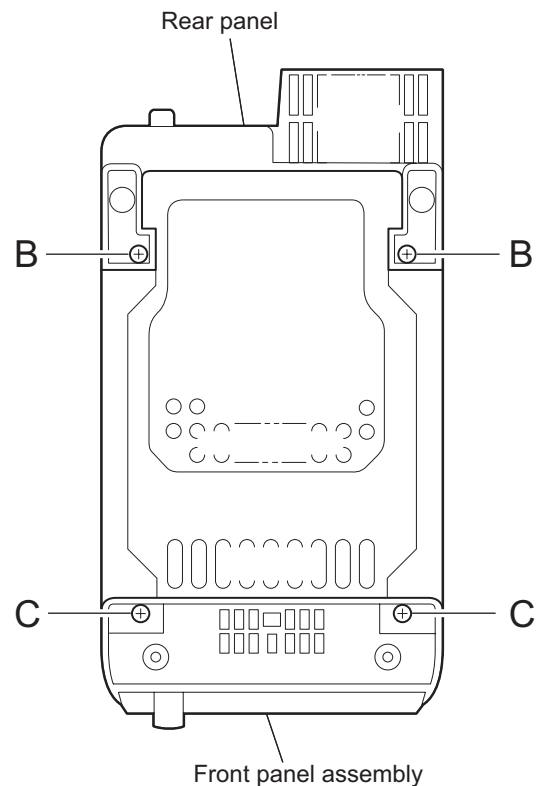
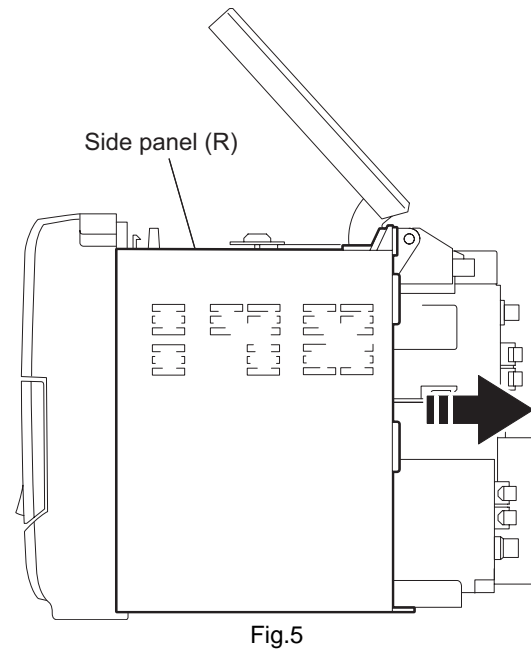
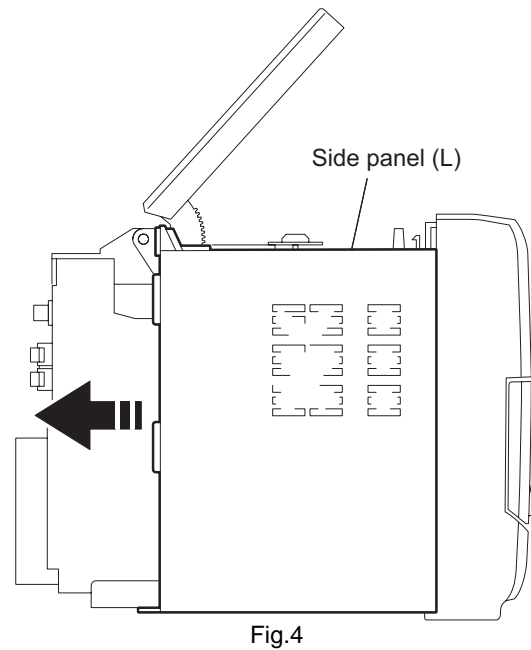
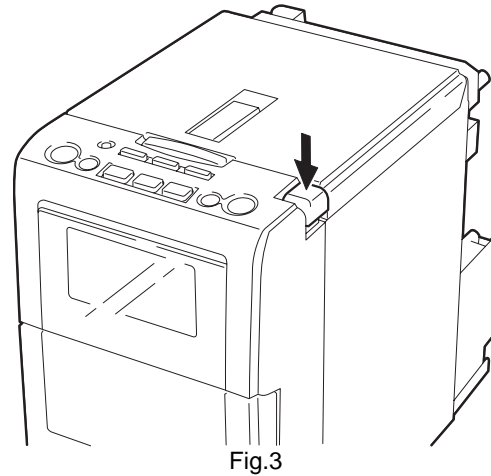


Fig.2

### 3.1.2 Removing the side panel (L) and (R) (See Fig.2~5)

- Prior to performing the following procedure, remove the rear panel.
  - (1) Turning the body upside down, remove the two screws **C** attaching the front panel assembly.
  - (2) Turning the body initial position, open the CD door while pressing the upper OPEN button.
  - (3) Moving the side panel (L) in the arrow direction, remove the panel from the left side of the body.
  - (4) Moving the side panel (R) in the arrow direction, remove the panel from the right side of the body.





### 3.1.3 Removing the CD player assembly (See Fig.6,7)

- Prior to performing the following procedure, remove the rear panel and the left and right side panels.
  - (1) Disconnect the card wires from the two connectors [CN603](#) and [CN604](#) on the CD servo control board.
  - (2) Remove the two screws **D** attaching the front panel assembly on the both sides.
  - (3) Release the two joints **a** on the both sides of the front panel assembly.
  - (4) Move the CD player assembly in the direction of the arrow.

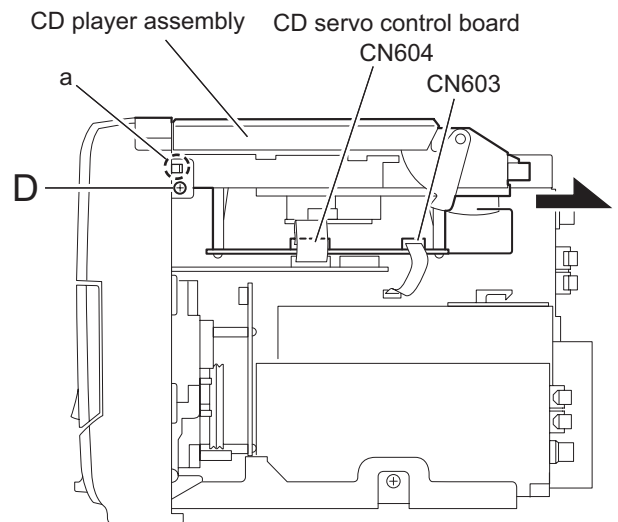


Fig.6

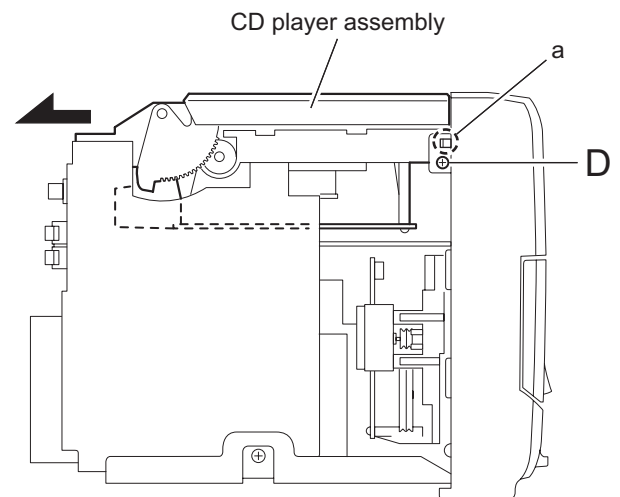


Fig.7

### 3.1.4 Removing the power amplifier board and heat sink (See Fig.8~10)

- Prior to performing the following procedure, remove the rear panel, the left and right side panels, and the CD player assembly.
  - (1) Remove the five screws **E** and **F** attaching the heat sink.
  - (2) Disconnect the wire from connector **CN901** on the power supply board.
  - (3) Disconnect the card wire from connector **CN305** on the power amplifier board.
  - (4) Remove the screw **G** attaching the power amplifier board.
  - (5) Disconnect the connector **CN301** on the power amplifier board, and release the two joints **b**.

#### REFERENCE:

Remove the screw **F**, then power amplifier board can be removed without removing heat sink.

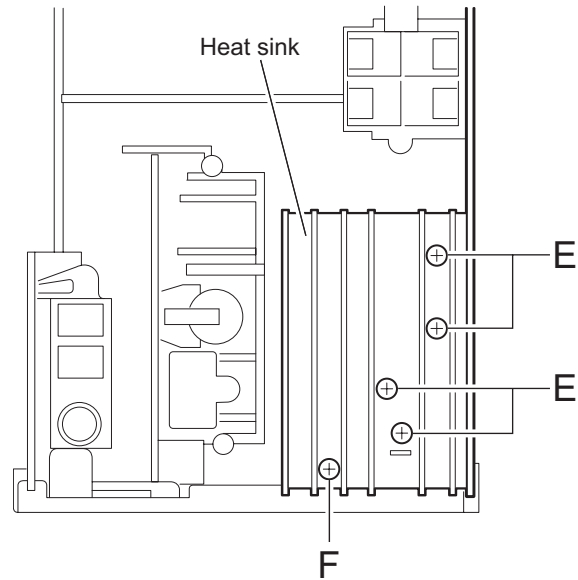


Fig.8

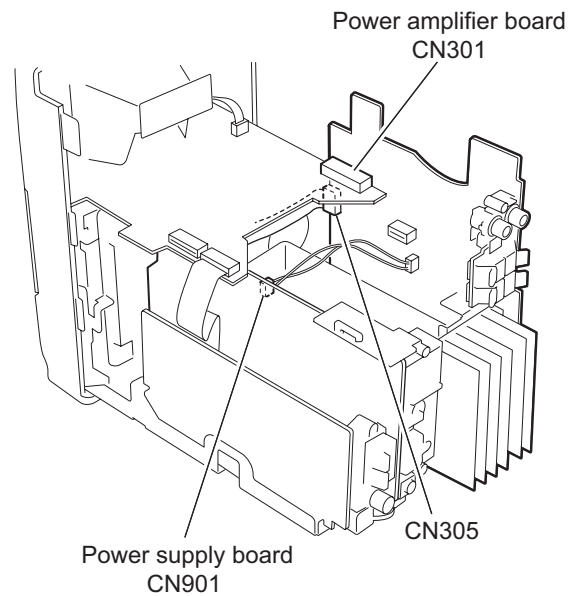


Fig.9

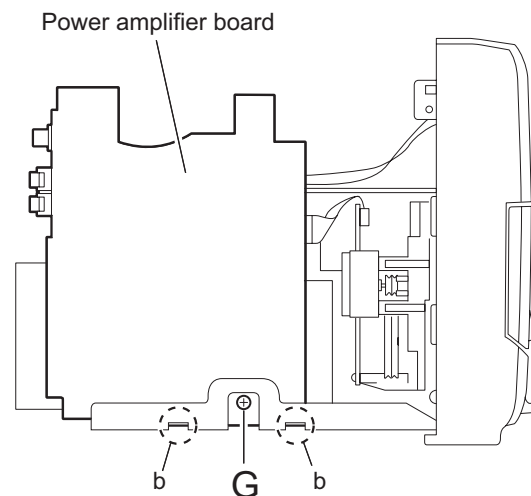


Fig.10

### 3.1.5 Removing the tuner board (See Fig.11)

- Prior to performing the following procedure, remove the rear panel, the left and right side panels, and the CD player assembly.
  - (1) Remove the screw **H** attaching the tuner board from the right side of the body.
  - (2) Disconnect the card wire from the connector **CN1** on the tuner board.
  - (3) Release the joint **c**, and remove the tuner board backward.

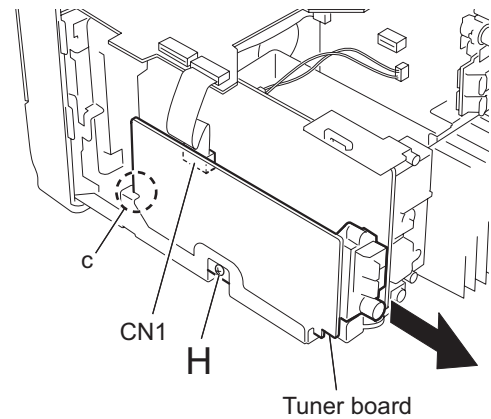


Fig.11

### 3.1.6 Removing the front panel assembly (See Fig.12,13)

- Prior to performing the following procedure, remove the rear panel, the left and right side panels, the CD player assembly, the power amplifier board.
  - (1) Disconnect the card wire from the connector **CN714** on the LCD system CPU board.
  - (2) Release the joint **d** on the bottom of the front panel assembly using a screwdriver, and remove the front panel assembly toward the front.

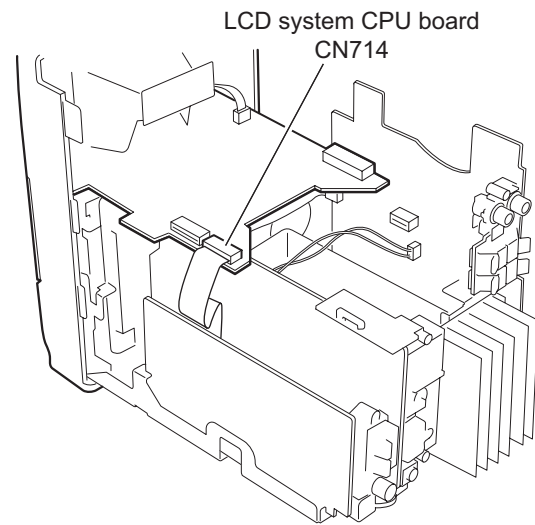


Fig.12

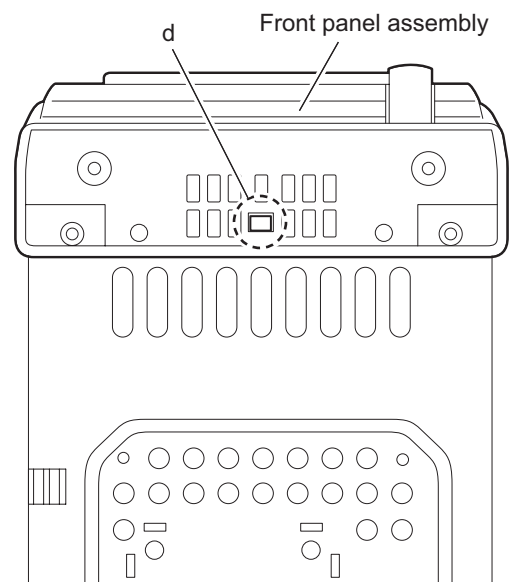


Fig.13

### 3.1.7 Remove the power transformer and power supply board (See Fig.14,15)

- Prior to performing the following procedure, remove the rear panel, the left and right side panels, the CD player assembly, the power amplifier board and the tuner board.
  - (1) Remove the screw **I** attaching the jack holder and release joint **e**, and then remove jack holder.
  - (2) Remove the four screws **J** attaching the power transformer and power supply board.

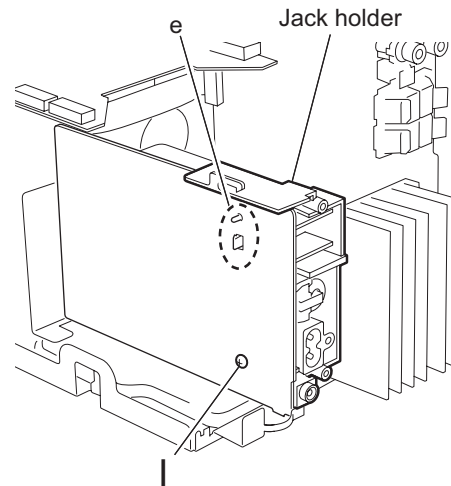


Fig.14

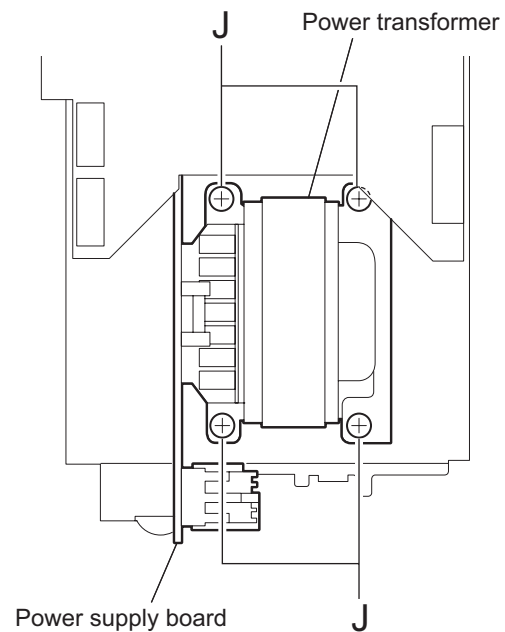
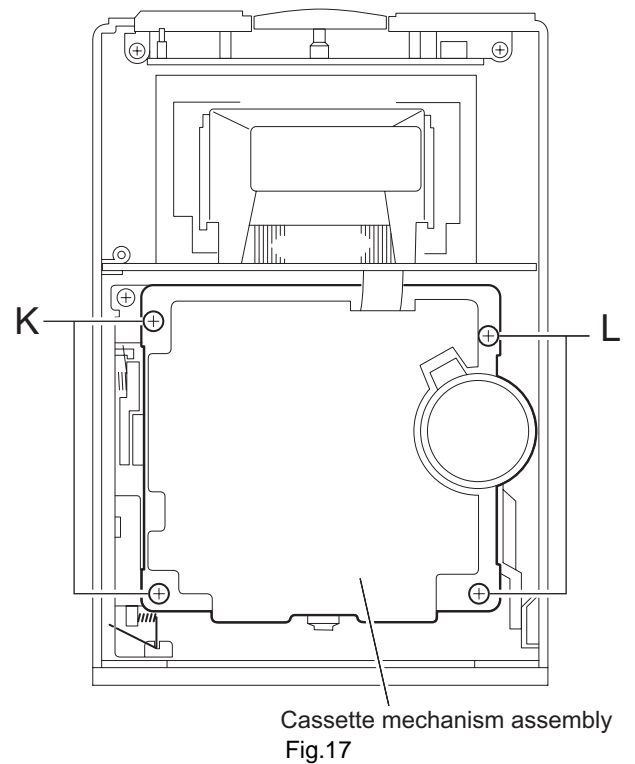
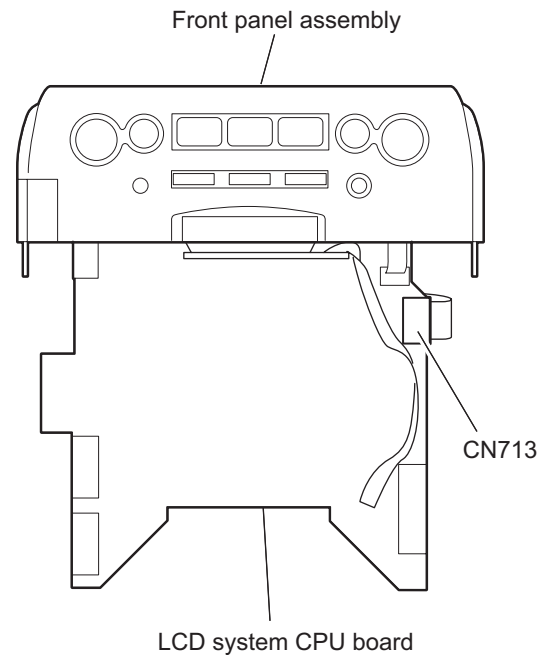


Fig.15

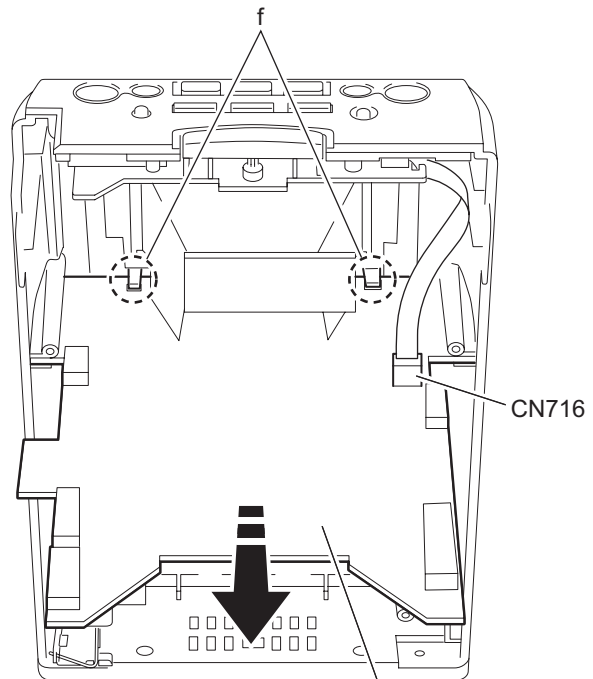
### 3.1.8 Remove the cassette mechanism assembly (See Fig.16,17)

- Prior to performing the following procedure, remove the front panel assembly.
  - (1) Disconnect the card wire from the connector [CN713](#) on the LCD system CPU board.
  - (2) Remove the four screws **K** and **L** attaching the cassette mechanism assembly, and remove.



### 3.1.9 Remove the LCD system CPU board (See Fig.18)

- (1) Disconnect the wire from the connector [CN716](#) on the LCD system CPU board.
- (2) Release the two joints **f** and pull out the LCD system CPU board.



LCD system CPU board  
Fig.18

### 3.1.10 Removing the operating switch board (See Fig.19,20)

- Prior to performing the following procedure, remove the front panel assembly, the cassette mechanism assembly and the LCD system CPU board.
- (1) Remove the two screws **M** attaching the operating switch button.
- (2) Remove the two screws **N** attaching the operating switch board, and remove.

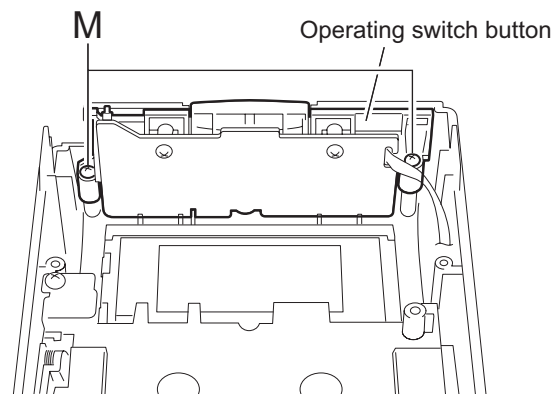
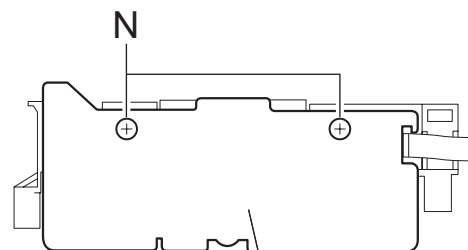


Fig.19



Operating switch board  
Fig.20

## 3.2 Cassette mechanism assembly

### 3.2.1 Removing the Play/Record & Clear head

(See Fig.1~3)

- (1) While moving the trigger arm on the right side of the head mount in the direction of the arrow, turn the flywheel **R** counterclockwise until the head mount comes ahead and clicks.
- (2) The head turns counterclockwise as you turn the flywheel **R** counterclockwise (See Fig.2 and 3).
- (3) Disconnect the flexible wire from connector **CN31** on the head amplifier & mechanism control board.
- (4) Remove the spring from the back of the head.
- (5) Loosen the azimuth screw for reversing attaching the head.
- (6) Remove the head on the front side of the head mount.

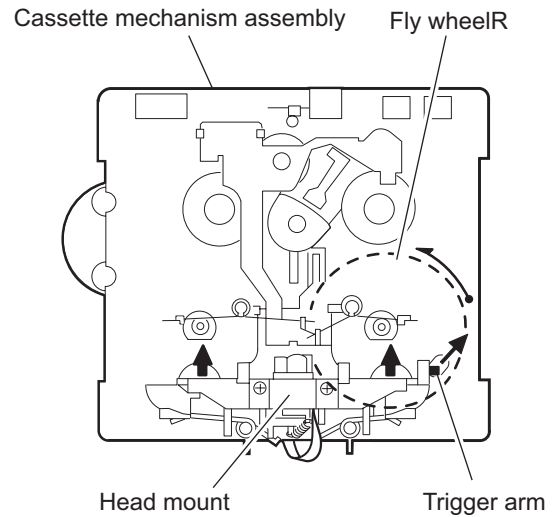


Fig.1

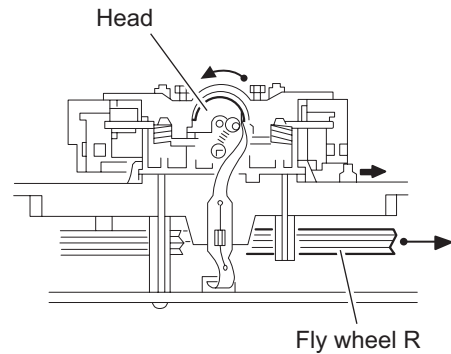


Fig.2

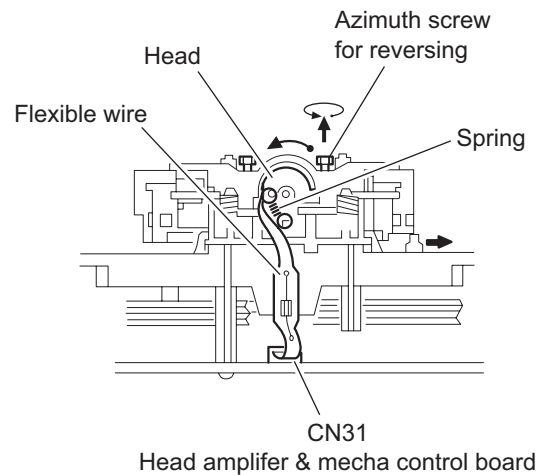


Fig.3

### 3.2.2 Removing the head amplifier & mechanism control board (See Fig.4)

- (1) Turn over the cassette mechanism assembly and remove the three screws **A** attaching the head amplifier & mechanism control board.
- (2) Disconnect the flexible wire from connector **CN31** on the head amplifier & mechanism control board.
- (3) Disconnect connector **CN32** of the head amplifier & mechanism control board from connector **CN1** on the reel pulse board.

#### REFERENCE:

If necessary, unsolder the 4-pin wire soldered to the main motor.

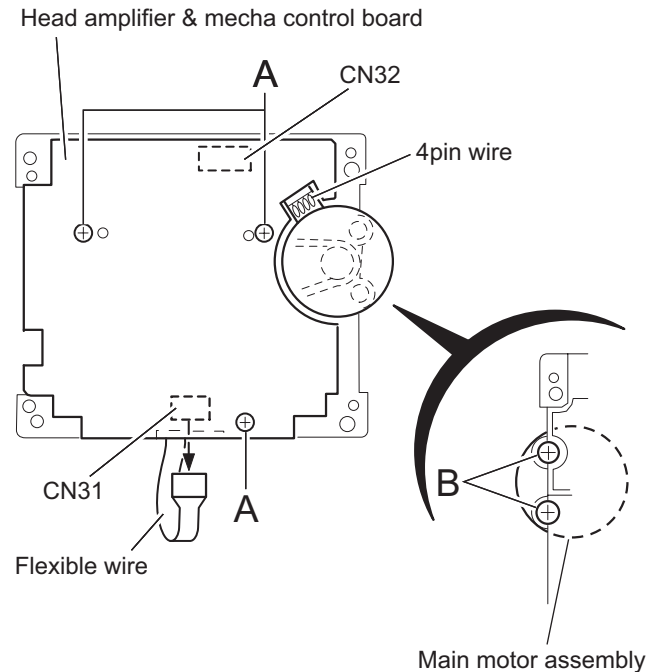


Fig.4

### 3.2.3 Removing the main motor (See Fig.4-7)

- (1) Remove the two screws **B**.
- (2) Half raise the motor and remove the capstan belt from the motor pulley.

#### ATTENTION:

Be careful to keep the capstan belt from grease. When reassembling, refer to Fig.6 and 7 for attaching the capstan belt.

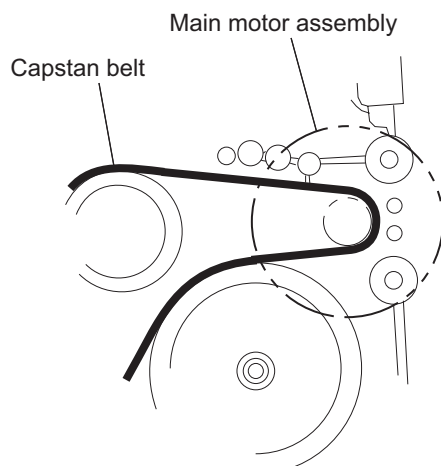


Fig.5

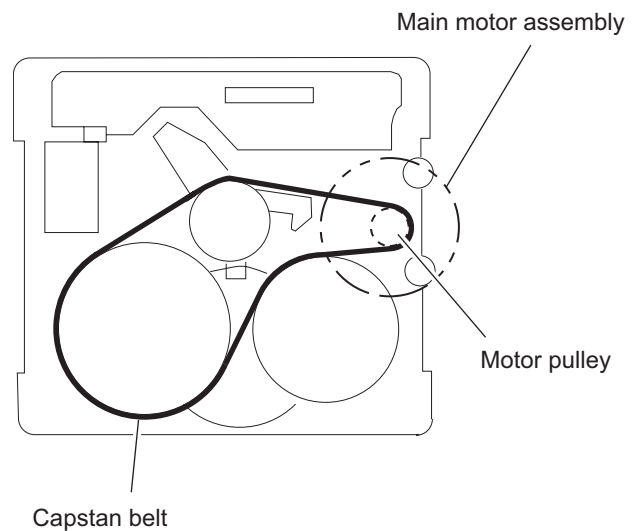


Fig.6

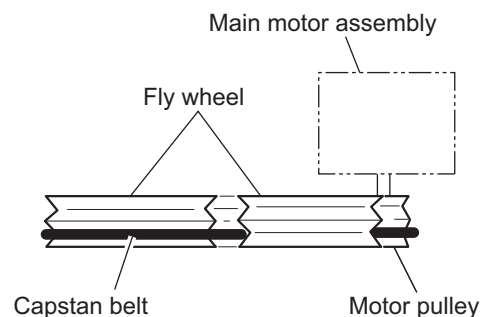


Fig.7



### 3.2.4 Removing the flywheel

(See Fig.8, 9)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board and the main motor assembly.
- (1) From the front side of the cassette mechanism, remove the slit washers attaching the capstan shaft **L** and **R**. Pull out the flywheels backward.

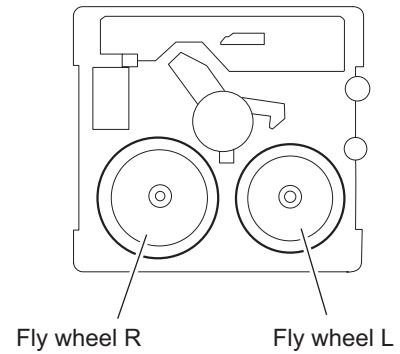


Fig.8

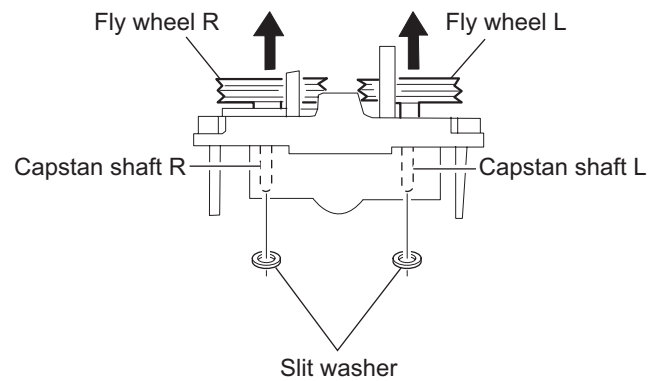


Fig.9

### 3.2.5 Removing the reel pulse board and solenoid

(See Fig.10)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board.
- (1) Remove the screw **C**.
- (2) Release the tab **a**, **b**, **c**, **d** and **e** retaining the reel pulse board.
- (3) Release the tab **f** and **g** attaching the solenoid on the reel pulse board.
- (4) The reel pulse board and the solenoid come off.

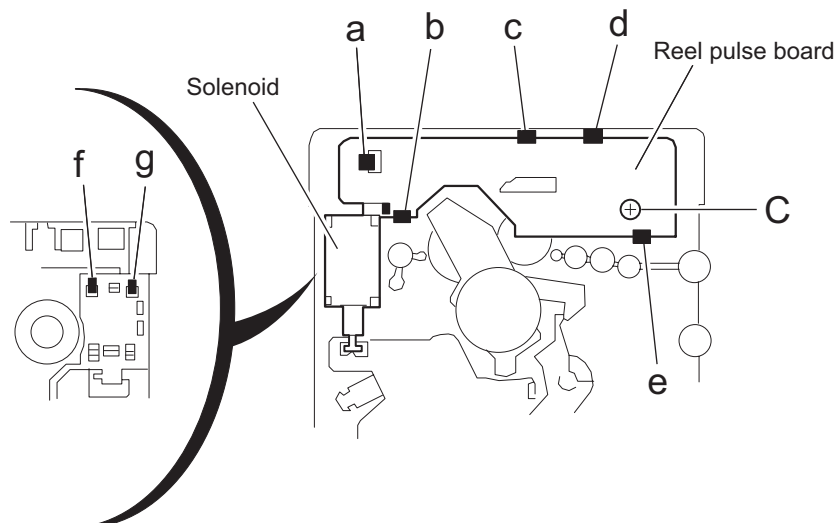


Fig.10

### 3.2.6 Reattaching the Play/ Record & Clear head (See Fig.11~13)

- (1) Reattaching the head mount assembly.
  - a) Change front of the direction cover of the head mount assembly to the left (Turn the head forward).
  - b) Fit the bosses **O'**, **P'**, **Q'**, **U'** and **V'** on the head mount assembly to the holes **P** and **V**, the slots **O**, **U** and **Q** of the mechanism sub assembly (See Fig.11 to 13).

#### CAUTION:

To remove the head mount assembly, turn the direction cover to the left to disengage the gear. If the gear can not be disengaged easily, push up the boss **Q'** slightly and raise the rear side of the head mounts slightly to return the direction lever to the reversing side.

- (2) Tighten the azimuth screw for reversing.
- (3) Reattach the spring from the back of the Play / Record & Clear head.
- (4) Connect the flexible wire to connector [CN31](#) on the head amplifier & mechanism control board.

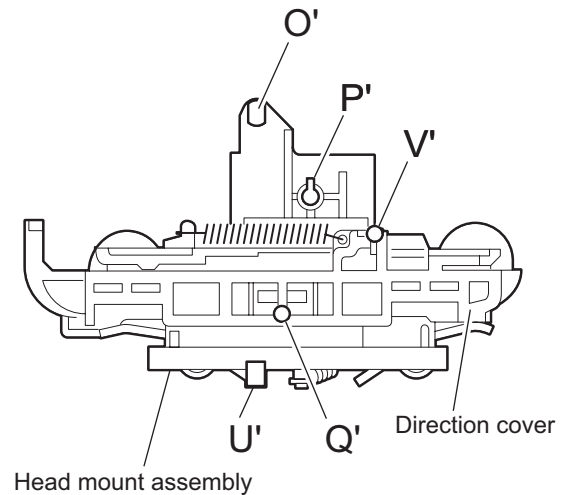


Fig.11

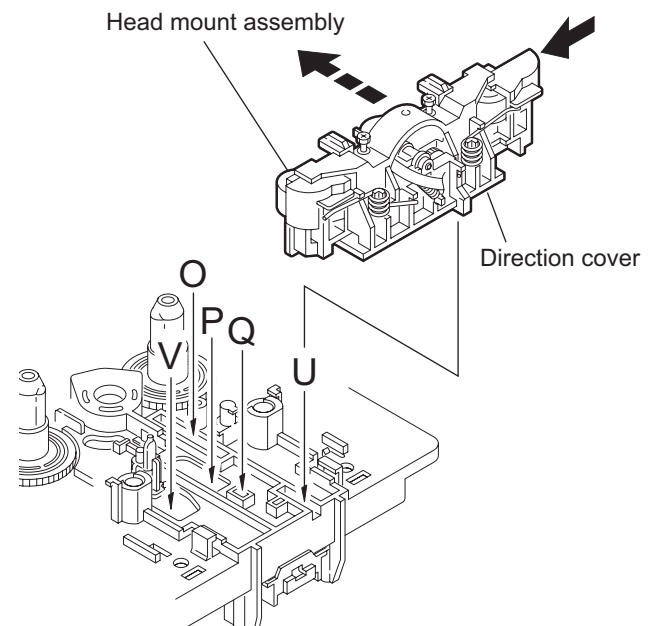


Fig.12

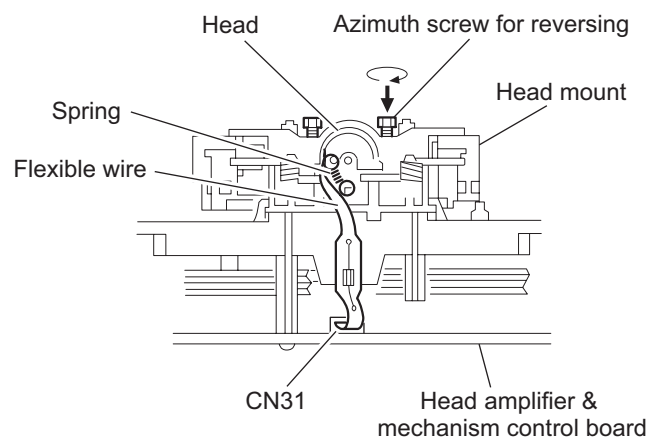


Fig.13

## SECTION 4 ADJUSTMENT

### 4.1 Measurement Instruments Required for Adjustment

- (1) Low frequency oscillator  
This oscillator should have a capacity to output 0dBs to 600Ω at an oscillation frequency of 50Hz-20kHz.
- (2) Attenuator impedance : 600Ω
- (3) Electronic voltmeter
- (4) Distortion meter
- (5) Frequency counter
- (6) Wow & flutter meter
- (7) Test tape  
VT703L : Head azimuth  
VT712 : Tape speed and running unevenness (3kHz)  
VT724 : Reference level (1kHz)
- (8) Blank tape  
TYPE I : AC-225  
TYPE II : AC-514
- (9) Torque gauge : For play and back tension  
FWD(TW211A), REV(TW212A) and FF/REW(TW223A)
- (10) Test disc: CTS-1000

### 4.2 Measurement conditions

Power supply voltage	AC240V~, 50Hz
Reference output	Speaker : 0.775V/6Ω Headphone : 0.077V/32Ω

Reference frequency and input level	1kHz, AUX : -8dBs
Measurement output terminal	at Speaker J3002
Load resistance	4Ω

#### 4.2.1 Radio Input signal

AM frequency	400Hz
AM modulation	30%
FM frequency	400Hz
FM frequency deviation	22.5kHz

#### 4.2.2 Tuner section

Voltage applied to tuner	+B : DC5.7V VT : DC 12V
Reference measurement output	26.1mV(0.28V)/3Ω
Input positions	AM : Standard loop antenna FM : TP1 (hot) and TP2 (GND)

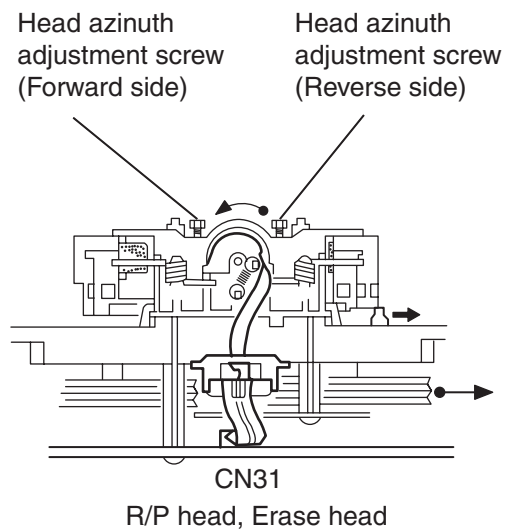
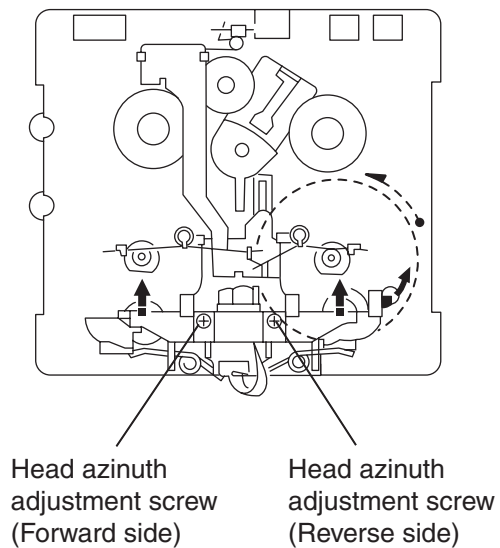
#### 4.2.3 Standard measurement position of volume

Function switch	to Tape
Beat cut switch	to Cut
Super Bass/Active hyper Bass	to OFF
Bass Treble	to Center
Adjustment of main volume to reference output	VOL : 0.775V

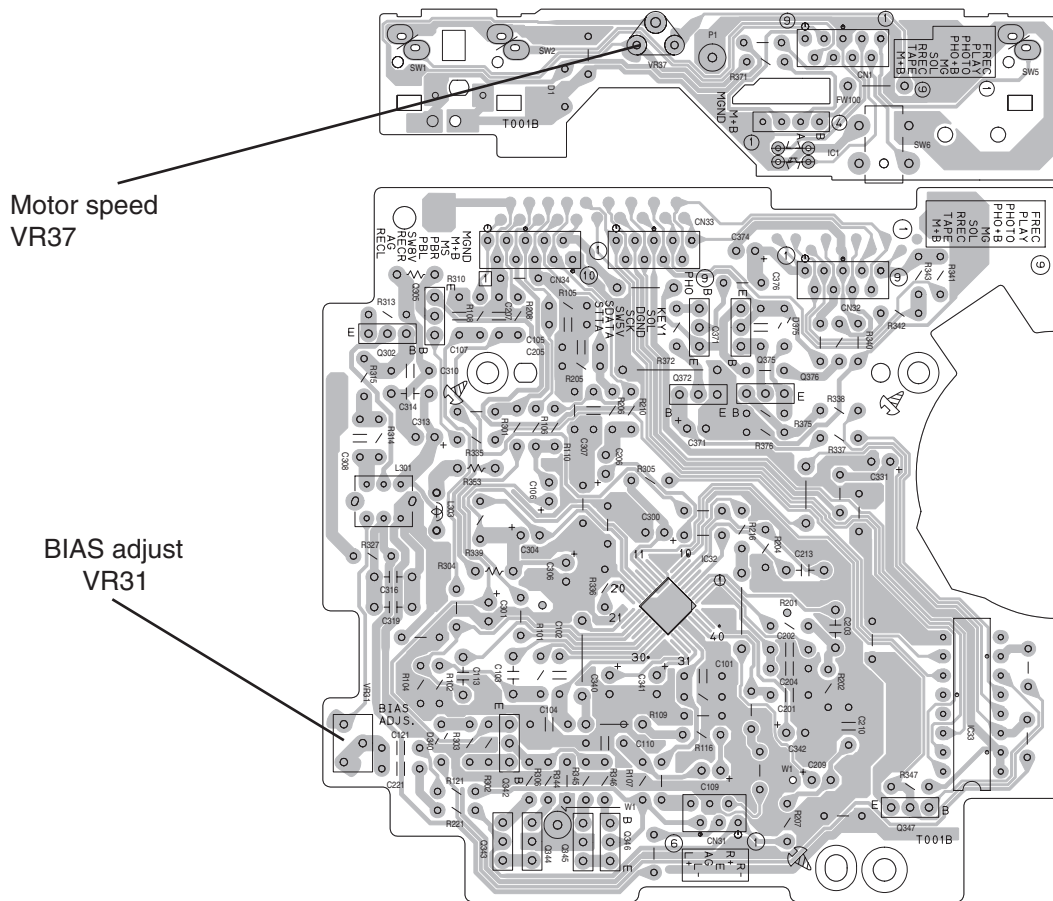
#### Precautions for measurement

- (1) Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μ F and 100kΩ in series to the sweeper input side.
- (2) The IF sweeper output level should be made as low as possible within the adjustable range.
- (3) Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
- (4) Since a ceramic oscillator is used, there is no need to perform any MIX adjustment.
- (5) Since a fixed coil is used, there is no need to adjust the FM tracking.
- (6) The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
- (7) In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an BTL system.
- (8) For connecting a dummy resistor when measuring the output, use the wire with a greater code size.
- (9) Whenever any mixed tape is used, use the band pass filter (DV-12).

### 4.3 Cassette mechanism adjustment



## Mecha control board



#### 4.3.1 Mechanism section

Item	Condition	Measurement method	Ref. value	Adjustment position
Head azimuth	Test tape :VT703L (8kHz) Output terminal :Speaker out	(1) Playback the test tape VT703L (8kHz). (2) Adjust to maximum output level by azimuth adjustment screw for forward side and reverse side. (3) This adjustment is adjust by adjustment screw of forward side and adjustment screw of reverse side.	Maximum output	Only adjust at changed head
Tape speed	Test tap :VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at end of forward side,adjust to 2,940~3,90Hz indication of frequency counter by <a href="#">VR37</a> .	2,940 ~ 3,090Hz	<a href="#">VR37</a>

Item	Condition	Measurement method	Ref. value	Adjustment position
Tape speed diviation at FWD/ REV	Test tape : VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at end of forward and reverse, tape speed deviation should be less than 6.0Hz.	Leass than 6.0Hz	<a href="#">VR31</a>
Wow & Flutter	Test tape : VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at start of forward and reverse, Wow & Flutter are should be less than 0.25%(WRMS).	Less than 0.25% (WRMS)	

#### 4.3.2 Electrical adjustment

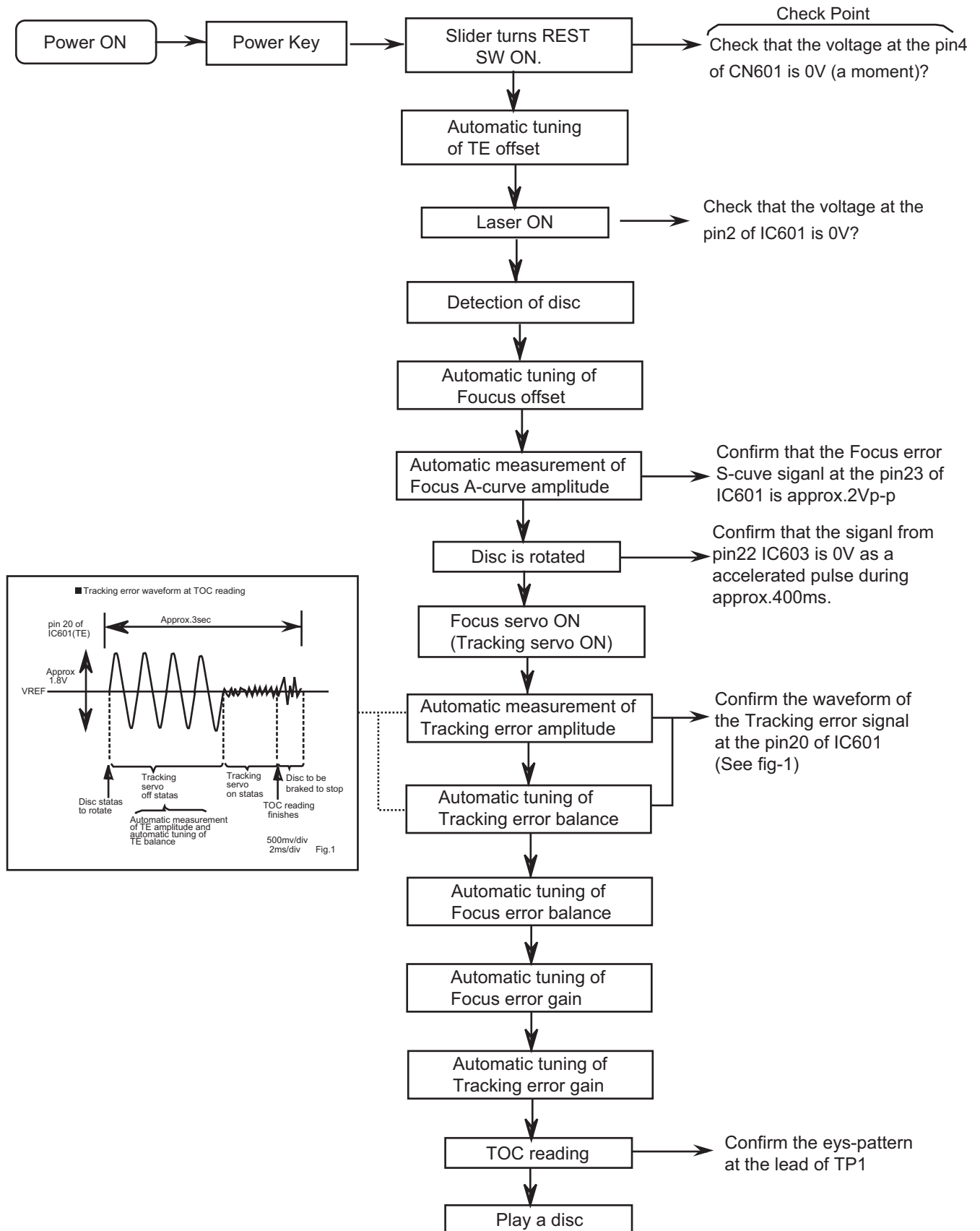
Item	Condition	Measurement method	Ref. value	Adjustment position
Recording BIAS adjustment	<ul style="list-style-type: none"> <li>Forward or Reverse</li> <li>Test tape : AC-514 TYPE II : AC-225 TYPE I</li> <li>Output termina Recording head</li> </ul>	(1) Set the test tape(AC-514 TYPE II and AC-225 TYPE I), then make REC/ PAUSE condition. (2) Connect 100Ω to recording head by series, then connect to VTVM for measurement the current. (3) After setting, start the recording by release the PAUSE, in this time bias current adjust to next fig. by <a href="#">VR31</a> for Lch and <a href="#">VR32</a> for Rch. 4.0 μA (TYPE II) and 4.20 μA (TYPE I).	AC-225 : 4.20μA AC-514 : 4.0μA	<a href="#">VR31</a>
R/P playback frequency response	<ul style="list-style-type: none"> <li>Reference frequency : 1kHz / 10kHz (Reference: -20dB)</li> <li>Test tape : AC-514 TYPE II</li> <li>Input terminal : OSC IN</li> </ul>	(1) Set the test tape (AC-514 TYPE ), then make REC/PAUSE condition. (2) Release the PAUSE, then start recording the 1kHz and 10kHz of reference frequency from oscillator. (3) Playback the recorded position, 1kHz and 10kHz output deviation should -1dB 2dB to readjust by <a href="#">VR31</a> for Lch and <a href="#">VR32</a> for Rch.	Output deviation 1kHz/10kHz : -1dB ± 2dB	<a href="#">VR31</a>

#### 4.3.3 Electrical response confirmation

Item	Condition	Measurement method	Ref. value	Adjustment position
Recording bias current	<ul style="list-style-type: none"> <li>• Forward or Reverse</li> <li>• Test tape : TYPE II (AC-514)</li> <li>• Measurement terminal : BIAS test point on printed circuit board</li> </ul>	(1) Change BIAS1 and 2, confirm the frequency should be change. (2) Set the test tape (AC-514 TYPE II), then make REC/PAUSE condition. (3) Confirm the frequency should 100Hz $\pm$ 6kHz at BIAS test point on printed circuit board.	100 kHz $\pm$ 6 kHz	
Erase current (reference value)	<ul style="list-style-type: none"> <li>• Forward or Reverse</li> <li>• Rec condition</li> <li>• Test tape : AC-514 TYPE II : AC-225 TYPE I</li> <li>• Measurement terminal : Both side of Erase head</li> </ul>	(1) Set the test tape (AC-514 TYPE II and AC-225 TYPE I), then make REC/PAUSE condition. (2) Release the PAUSE to REC condition, connect 1W to ERASE head by series, then confirm the erase current at both side of erase head.	TYPE II : 120 mA TYPE I : 75 mA	

## SECTION 5 TROUBLESHOOTING

### 5.1 Flow of functional operation until TOC read (CD)



## 5.2 Maintenance of laser pickup (CD)

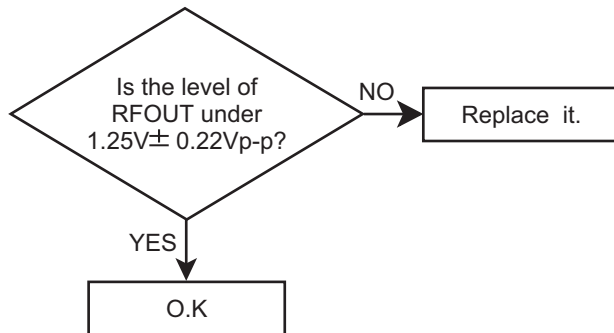
### (1) Cleaning the pick up lens

Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

### (2) Life of the laser diode

When the life of the laser diode has expired, the following symptoms will appear.

- The level of RF output (EFM output : amplitude of eye pattern) will below.



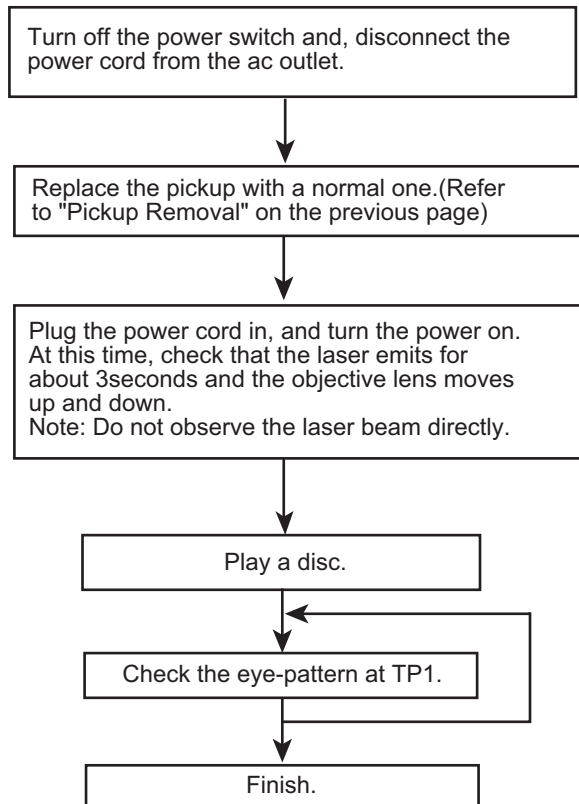
### (3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

## 5.3 Replacement of laser pickup (CD)









VICTOR COMPANY OF JAPAN, LIMITED  
AV & MULTIMEDIA COMPANY AUDIO/VIDEO SYSTEMS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan



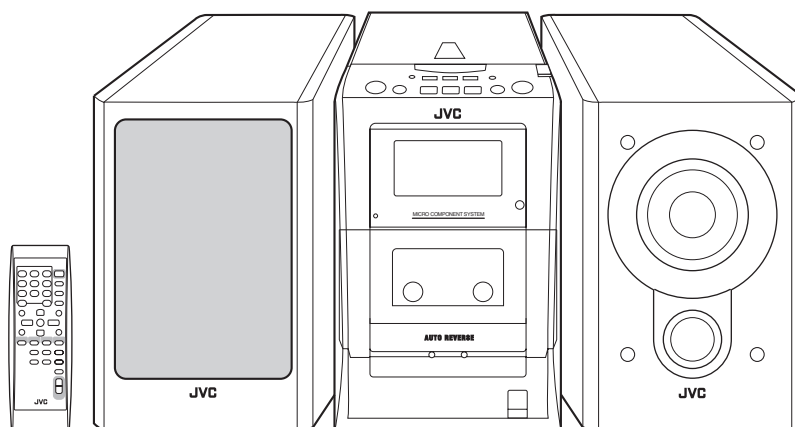
# JVC

# SCHEMATIC DIAGRAMS

## MICRO COMPONENT SYSTEM

### UX-H35

CD-ROM No.SML200309



#### Area Suffix

A ----- Australia

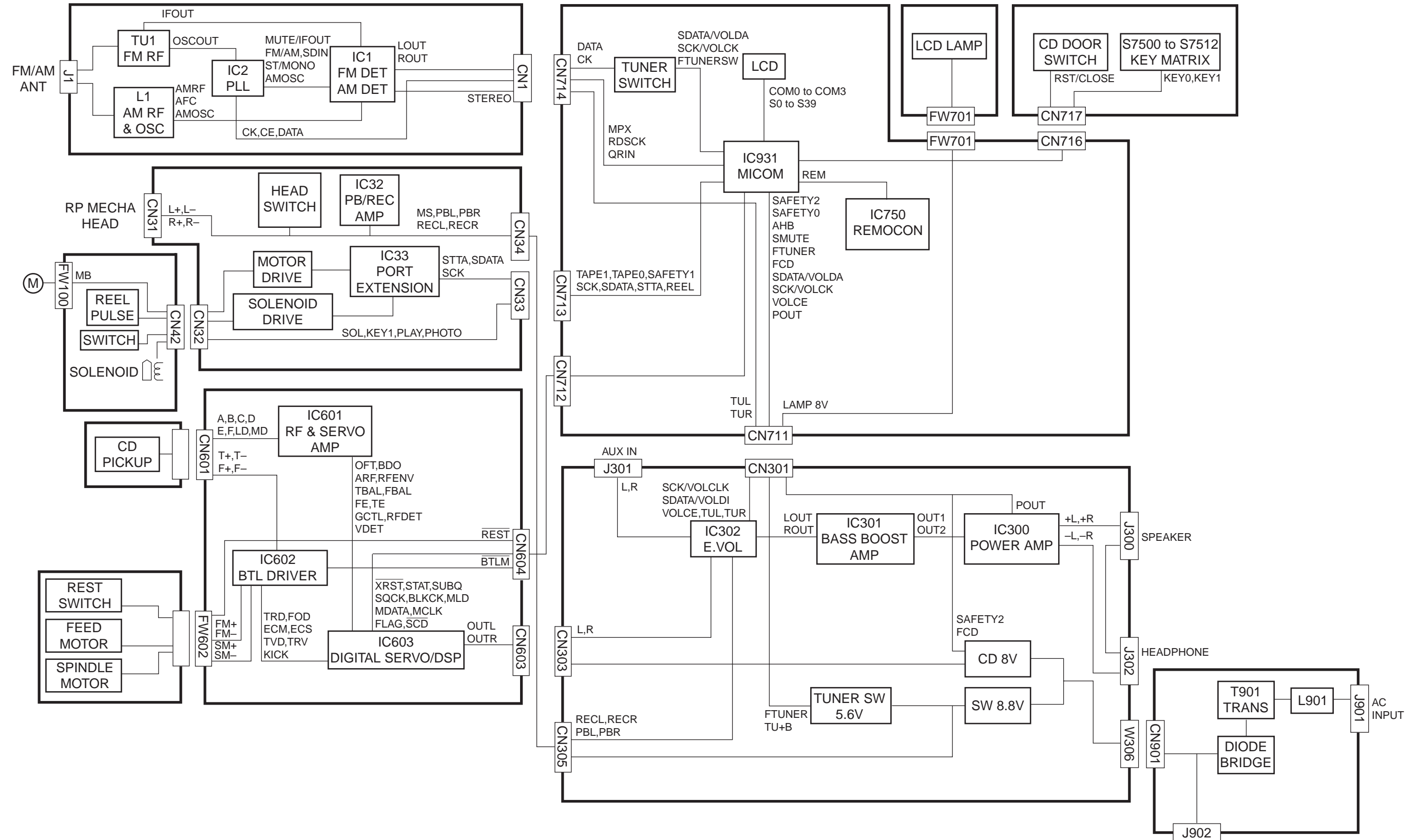
### Contents

Block diagram .....	2-1
Standard schematic diagrams .....	2-2
Printed circuit boards .....	2-8~10

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▣) and ICP (●) or identified by the "△" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

## Block diagram



# Standard schematic diagrams

## ■ Primary section

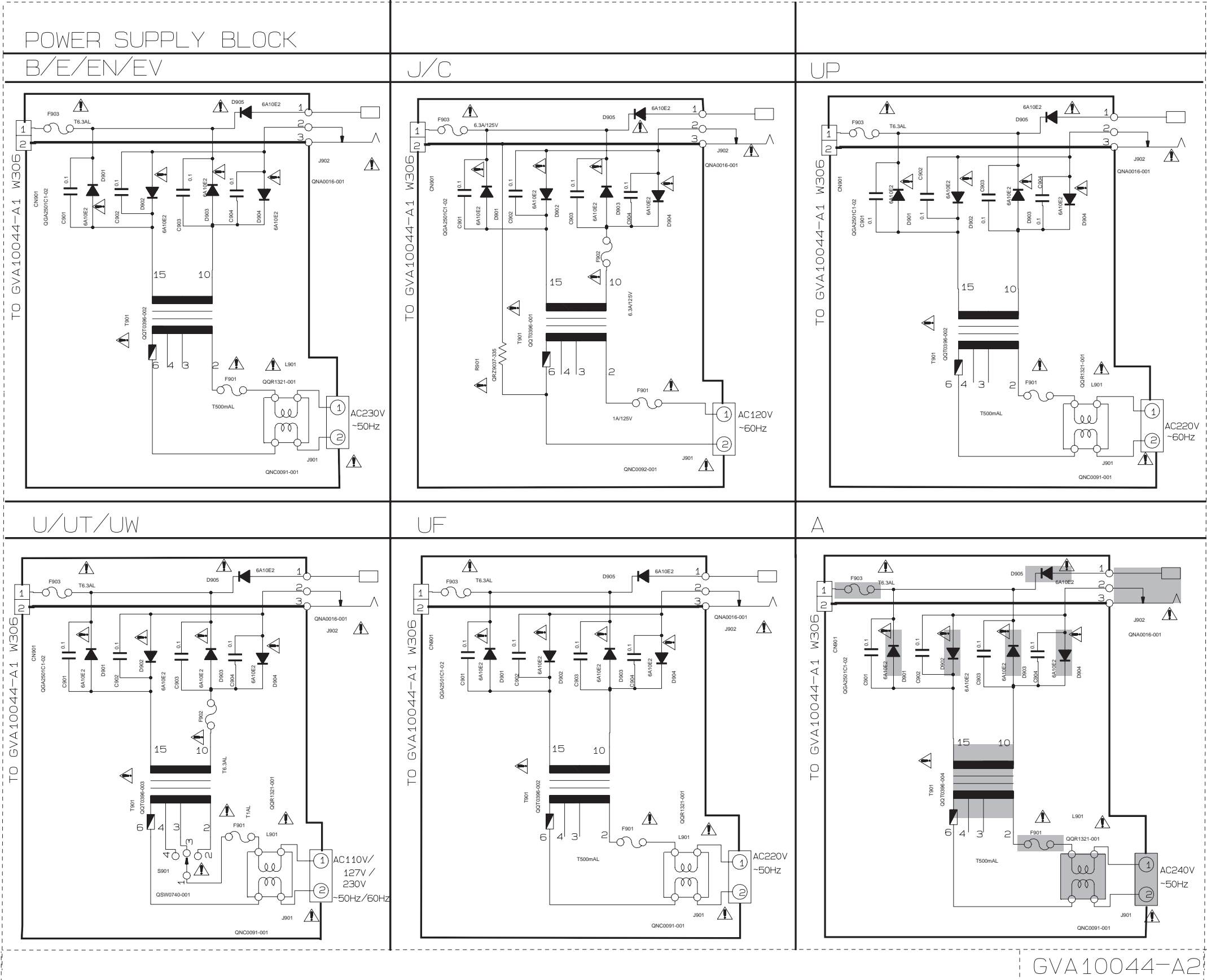
SHEET NO.	MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
1/7	FS/UX-H30/H33/H35	.PRIMARY WITH MAINS TRANSFORMER
2/7	FS/UX-H30/H33/H35	.DC REGULATOR. AUDIO OUTPUT .EXTERNAL INPUT. SOURCE SELECTOR SWITCH
3/7	FS/UX-H30/H33/H35	.LCD DISPLAY/SYSTEM CONTROL/USERS KEY CONTROL.
4/7	FS/UX-H30/H33/H35	.CD SERVO AND CD SYSTEM CONTROL
5/7	FS/UX-H30/H33/H35	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS.
6/7	FS/UX-H30/H33/H35	.TUNER RF/IF/FM MULTIPLEX (A/UF/E GROUPS)
7/7	FS/UX-H30/H33/H35	.TUNER RF/IF/FM MULTIPLEX (J/C/U GROUPS)

VERSION CODES	
J	: USA
C	: CANADA
A	: AUSTRALIA
B	: U. K
E	: CONTINENTAL EUROPE
EN	: NORDIC COUNTRIES
EV	: EASTERN EUROPE & RUSSIA
UF	: CHINA
UP	: KOREA
UT	: TAIWAN
UW	: SOUTH AMERICA
U	: SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE

VOLTAGE SELECTOR LOCATION		
110V	127V	230V

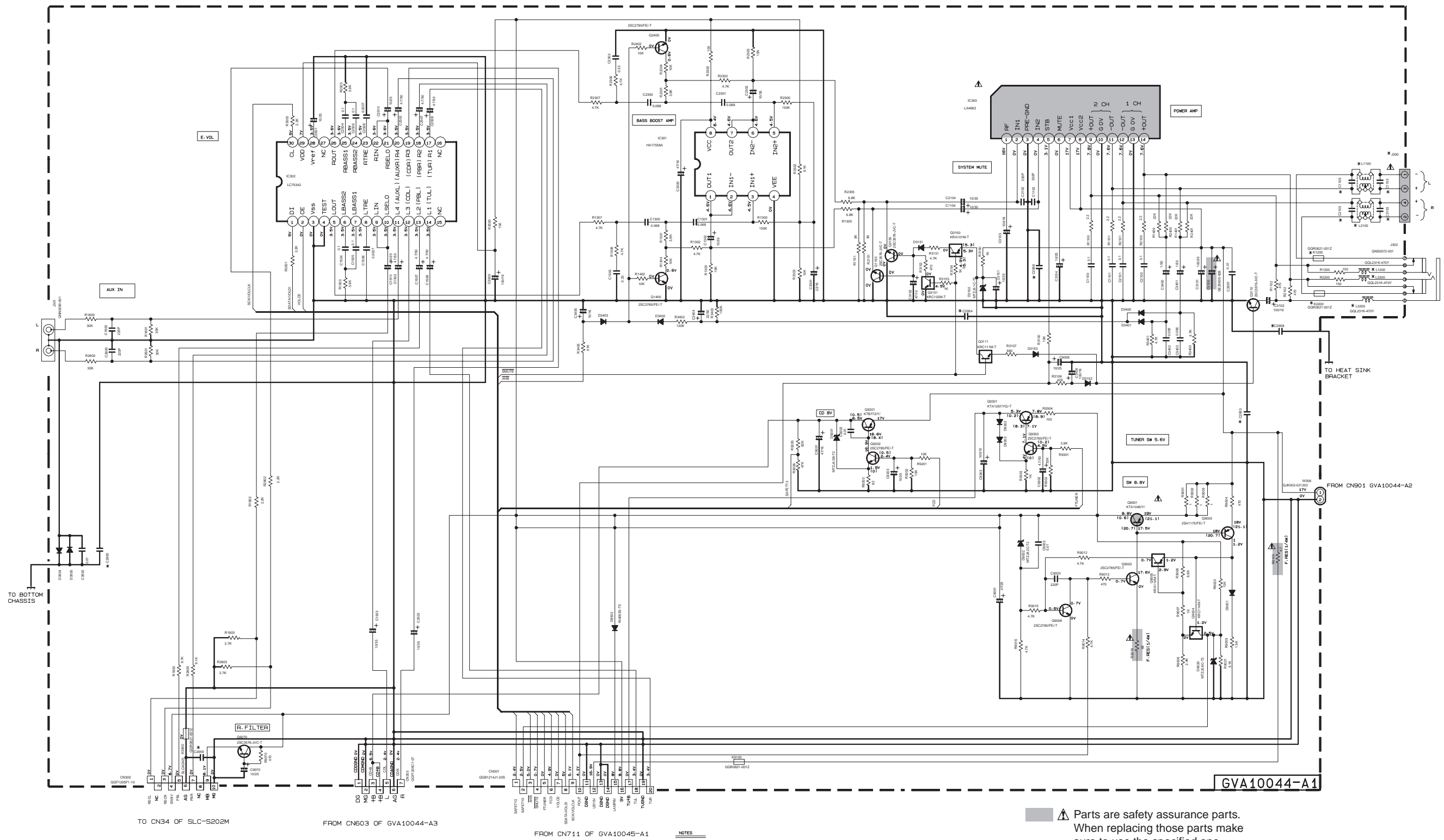
NOTES  
1. VOLTAGE ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.  
INSIDE BRACKET VALUES ARE OTHER FUNCTIONS  
2. UNLESS OTHERWISE SPECIFIED, RESISTOR ARE 1/8W±5% CARBON RESISTOR.  
ALL RESISTOR VALUES ARE IN OHM.  
ALL CAPACITOR ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN uF(μF).  
ALL INDUCTANCE VALUES ARE IN uH(μH).  
ALL E-CAPACITOR ARE SHOWN IN THE FORM OF CAPACITANCE (uF)/RATED VOLTAGE(V).

⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.



GVA10044-A2

## ■ Amp section

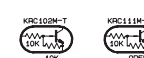
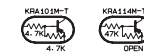


### ■ PART LIST

PART	VERSION	L1200/2200/3200	K1200/2200	C1105/2105	L1100	L2100	C1103/2103	J300	C2953/C2954/C2955/C2956	C2956/C2958
U/C		82029/2030/2031	82027/2028	—	87208/7209	87211/7212	—	QNB0117-002	—	—
B/E/EN/EV		Q9L231K-470V	Q9R0621-0012	2206	Q9R0797-002	Q9R0797-002	0.0033u	QNB0117-001	0.001	0.01
A/U/UP/UP/UT/UM		Q9L231K-470V	Q9R0621-0012	2206	Q9R0797-002	Q9R0797-002	0.0033u	QNB0117-001	0.001	0.01

### NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.  
CONDITION — CD STOP MODE  
INSIDE BRACKET VALUES ARE OTHER FUNCTIONS
- UNLESS OTHERWISE SPECIFIED - RESISTORS ARE 1/8W ± 5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM(S).  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN pF (pF).  
ALL INDUCTANCE VALUES ARE IN mH (mH).  
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
ALL DIODES (DEV. Name: 155133-12)

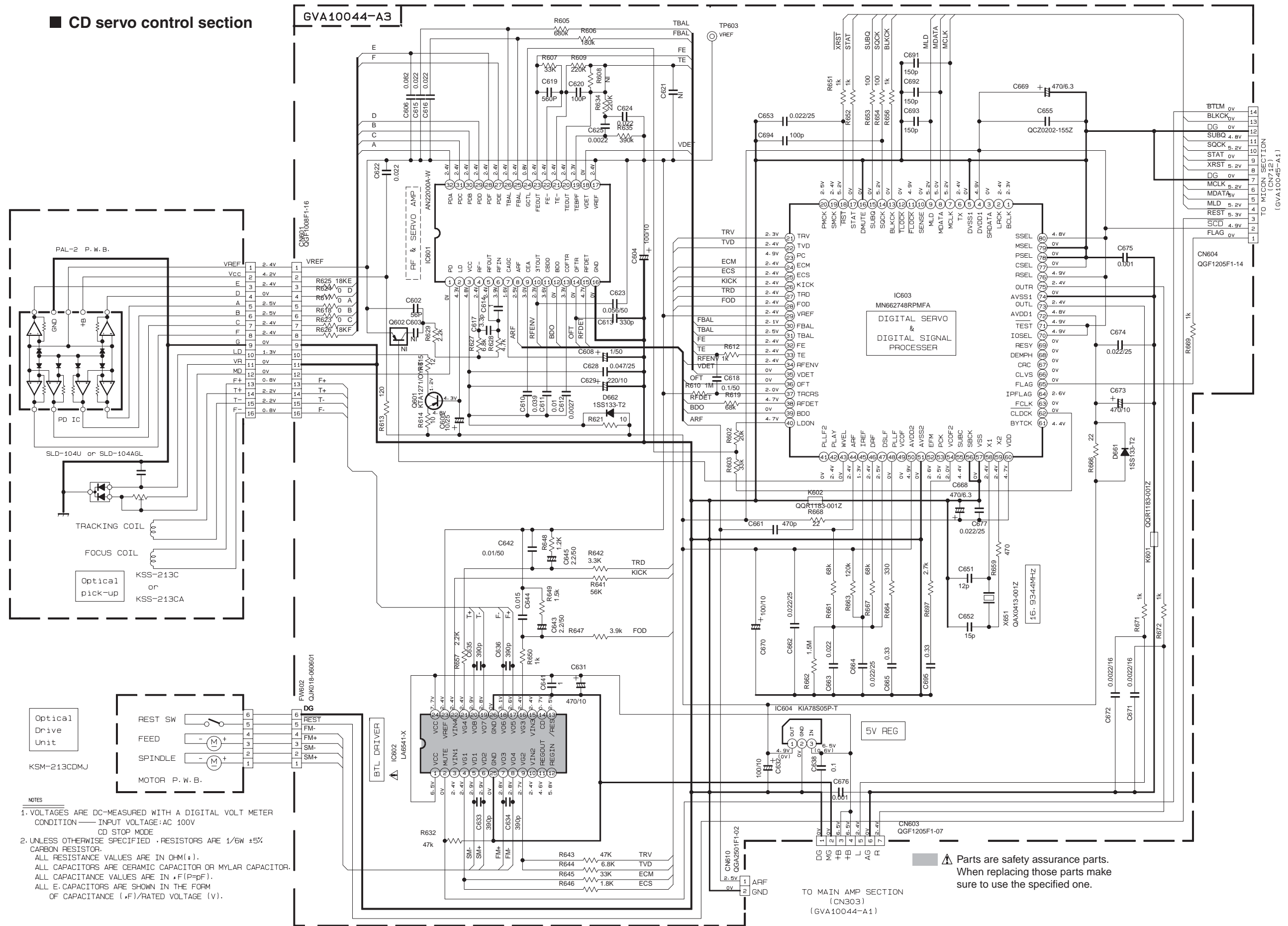


⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

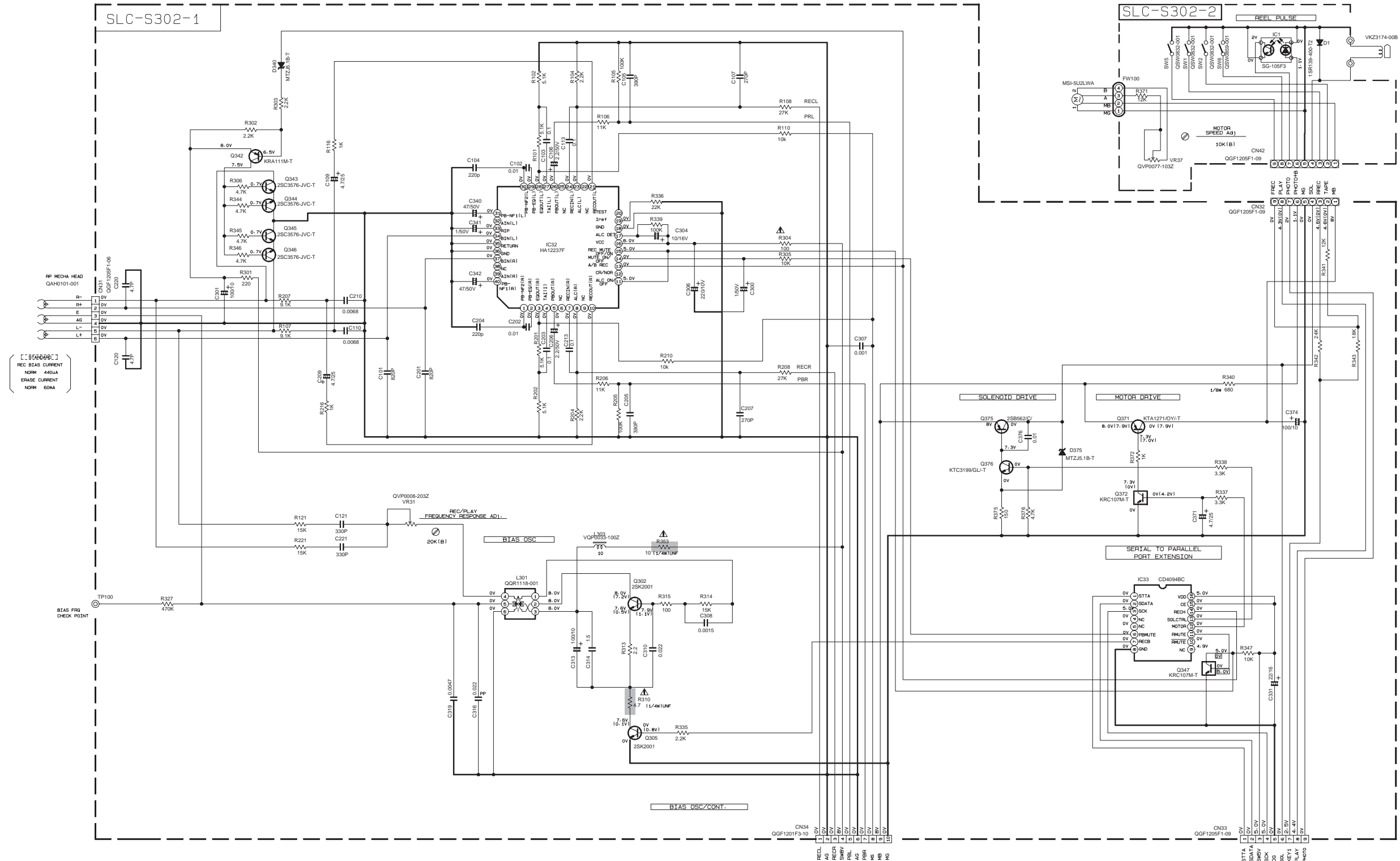




CD servo control section



# ■ Cassette mechanism control section



## NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION : MEDIA STOP MODE

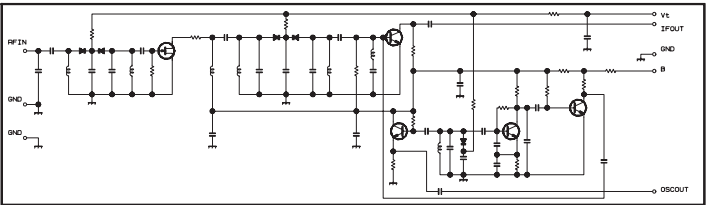
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W ±5% METAL GLAZE RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(s). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN nF(p-pF). ALL INDUCTANCE VALUES ARE IN mH(mmH). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (nF)/RATED VOLTAGE (V).   
 POLYPROPYLENE CAPACITOR

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ Tuner section

CONDITION PIN NO.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1	FM NO SIGNAL	3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	0.1	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.5	3.5	3.6	3.6	2.7
	FM 60dB STEREO	3.6	8.9	3.6	3.6	0	5.0	8.9	8.9	1.3	4.3	0	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7
IC2	AM NO SIGNAL	3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	3.3	3.2	2.8	ust	0.7	0.7	3.6	3.6	3.6	3.6	2.1	
	FM NO SIGNAL	2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3								

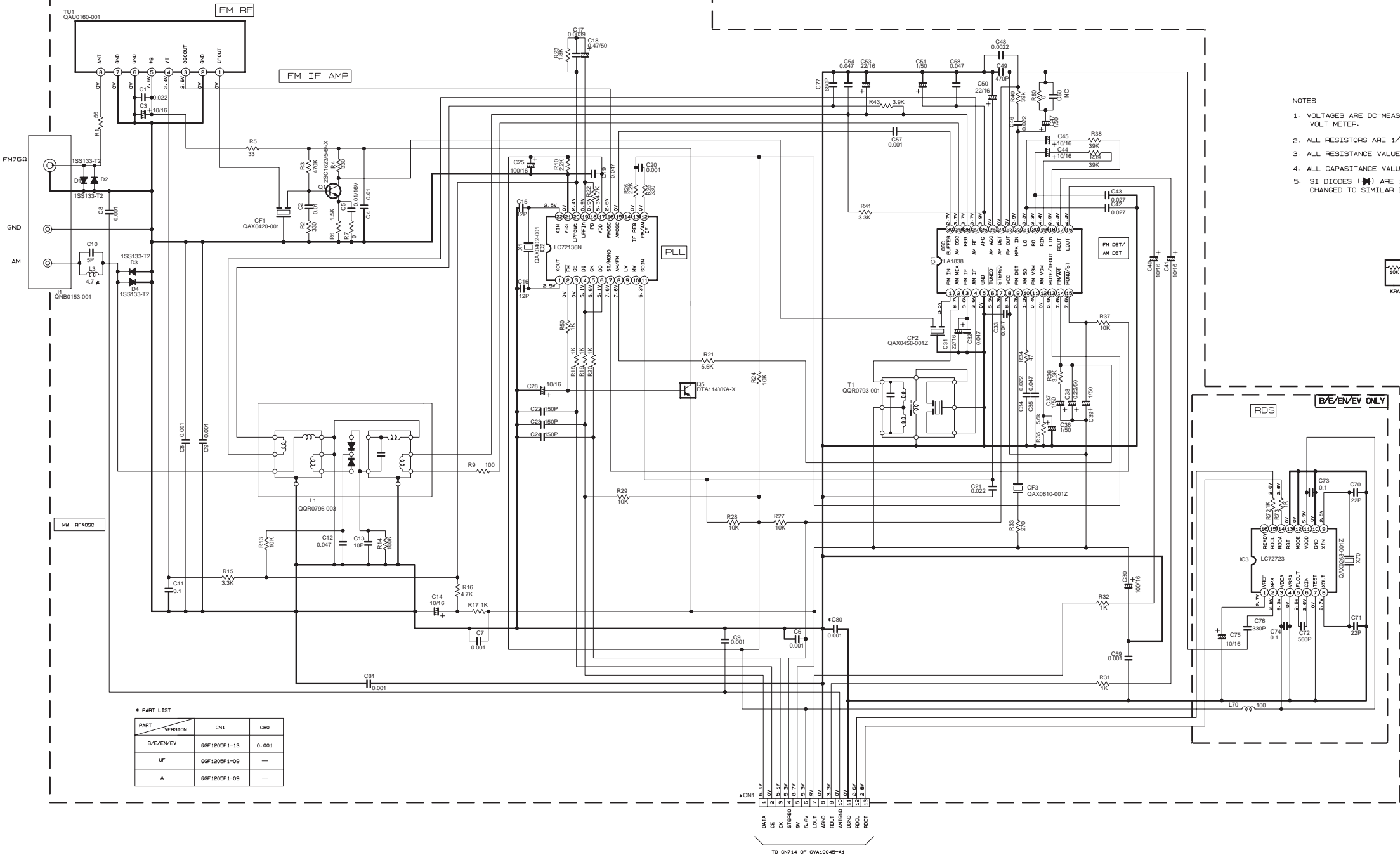
Tr NO.	Q1				Q5			
PIN NO.	E	C	B	E	C	B		
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8	0		
AM 522KHz NO SIGNAL	0	0	0	9.0	0	8.9		



- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
  2. ALL RESISTORS ARE 1/16W ±5% METAL GLAZE RESISTOR.
  3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
  4. ALL CAPASITANCE VALUES ARE IN P(FpF).
  5. SI DIODES (D) ARE 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.



GVA10045-A2

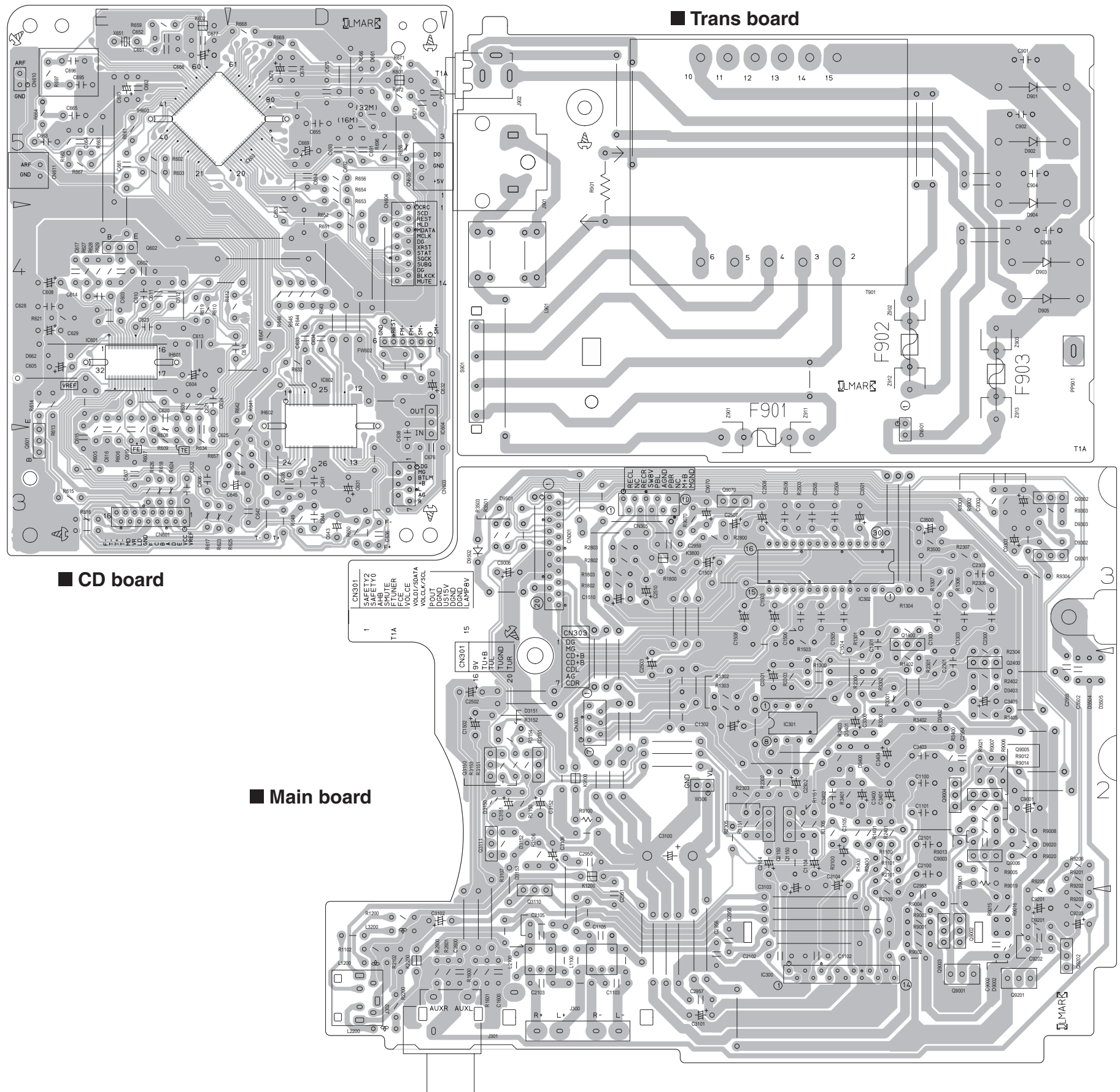


\* PART LIST

PART	VERSION	DN1	CB0
B/E/EN/VEV	QGF1205F1-13	0.001	
UF	QGF1205F1-09	—	
A	QGF1205F1-09	—	

TO CN714 OF GVA10045-A1

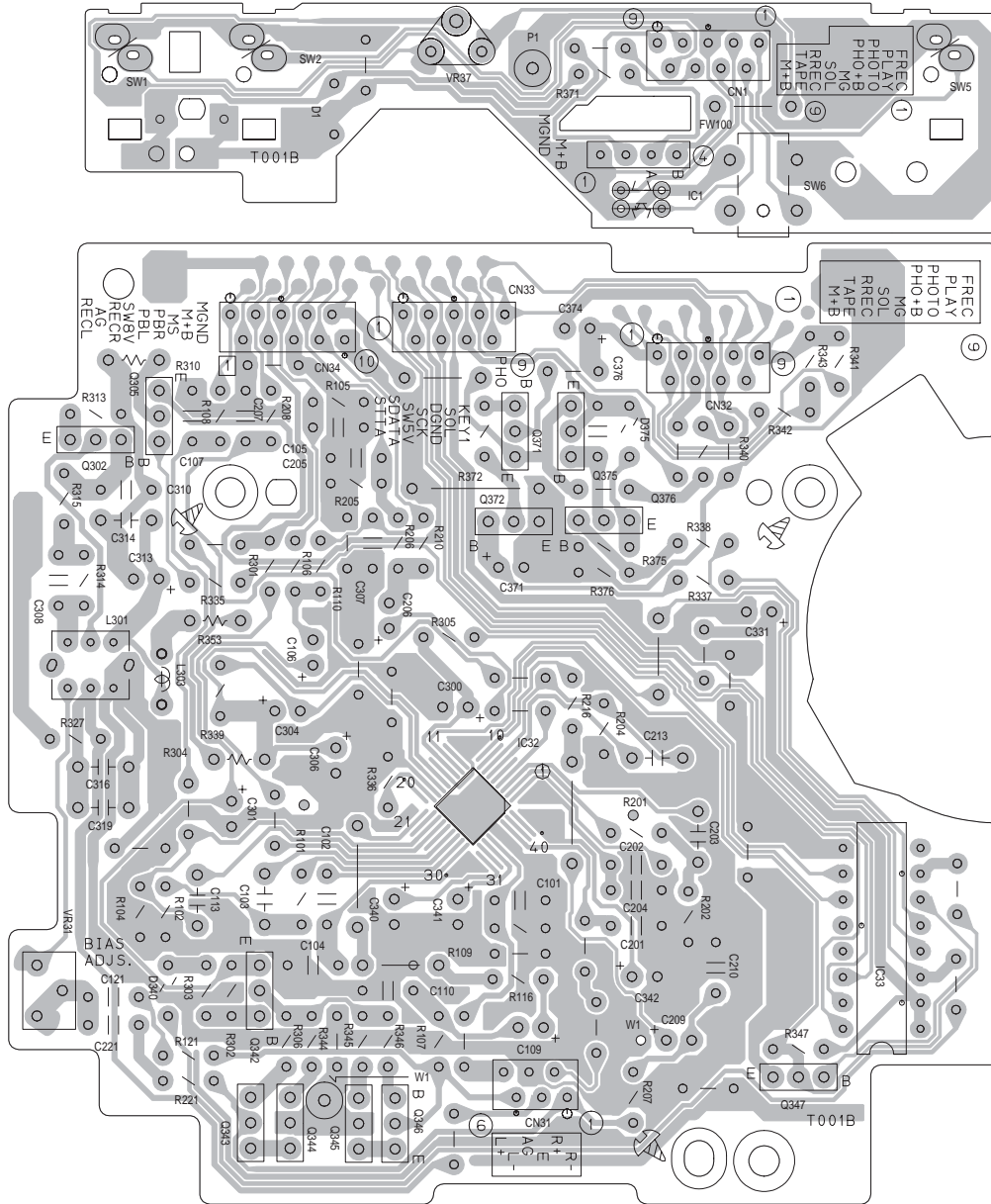
Printed circuit boards







## ■ Cassette (switch) board



## ■ Cassette board

< MEMO >



VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY AUDIO/VIDEO SYSTEMS CATEGORY 10-1, 1chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

(No.MB053SCH)



Printed in Japan  
WPC



# PARTS LIST

[ UX-H35 ]

\* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

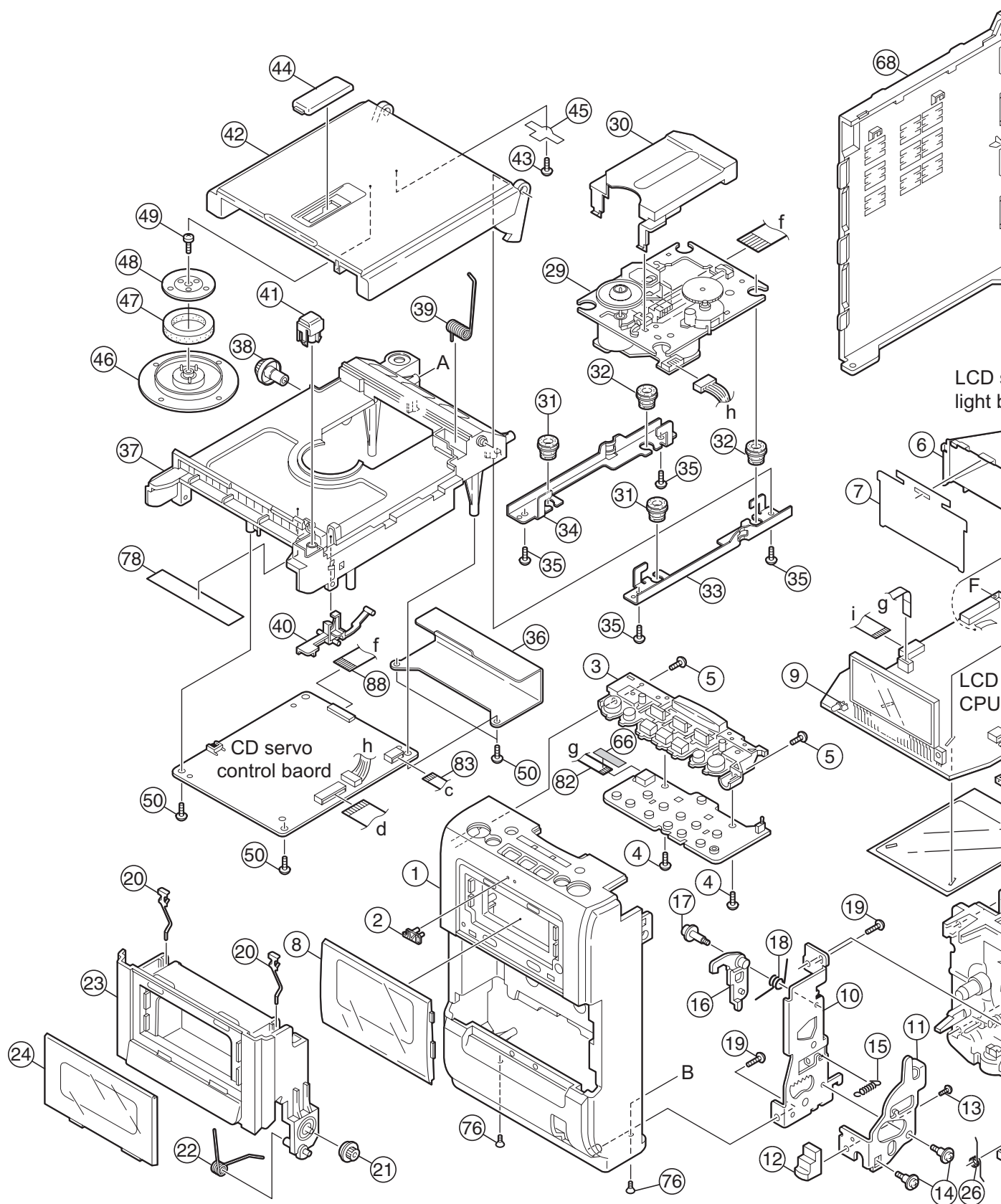
A ----- Australia

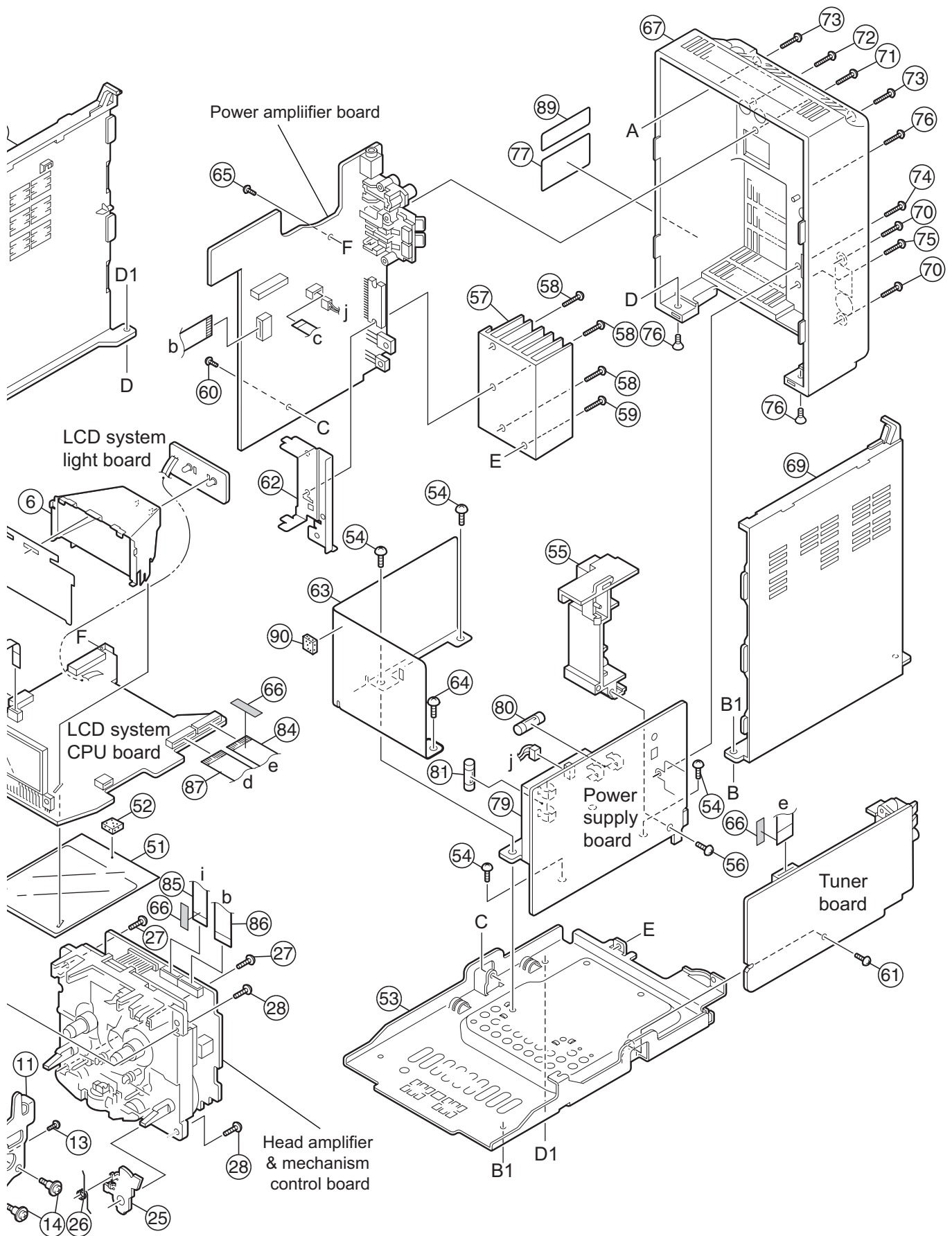
## - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 2
Speaker assembly and parts list (Block No.M2) .....	3- 5
Cassette mechanism assembly and parts list (Block No.MP) .....	3- 6
Electrical parts list (Block No.01~04) .....	3- 8
Packing materials and accessories parts list (Block No.M3) .....	3-14

# Exploded view of general assembly and parts list

Block No. M 1 M M





# General assembly

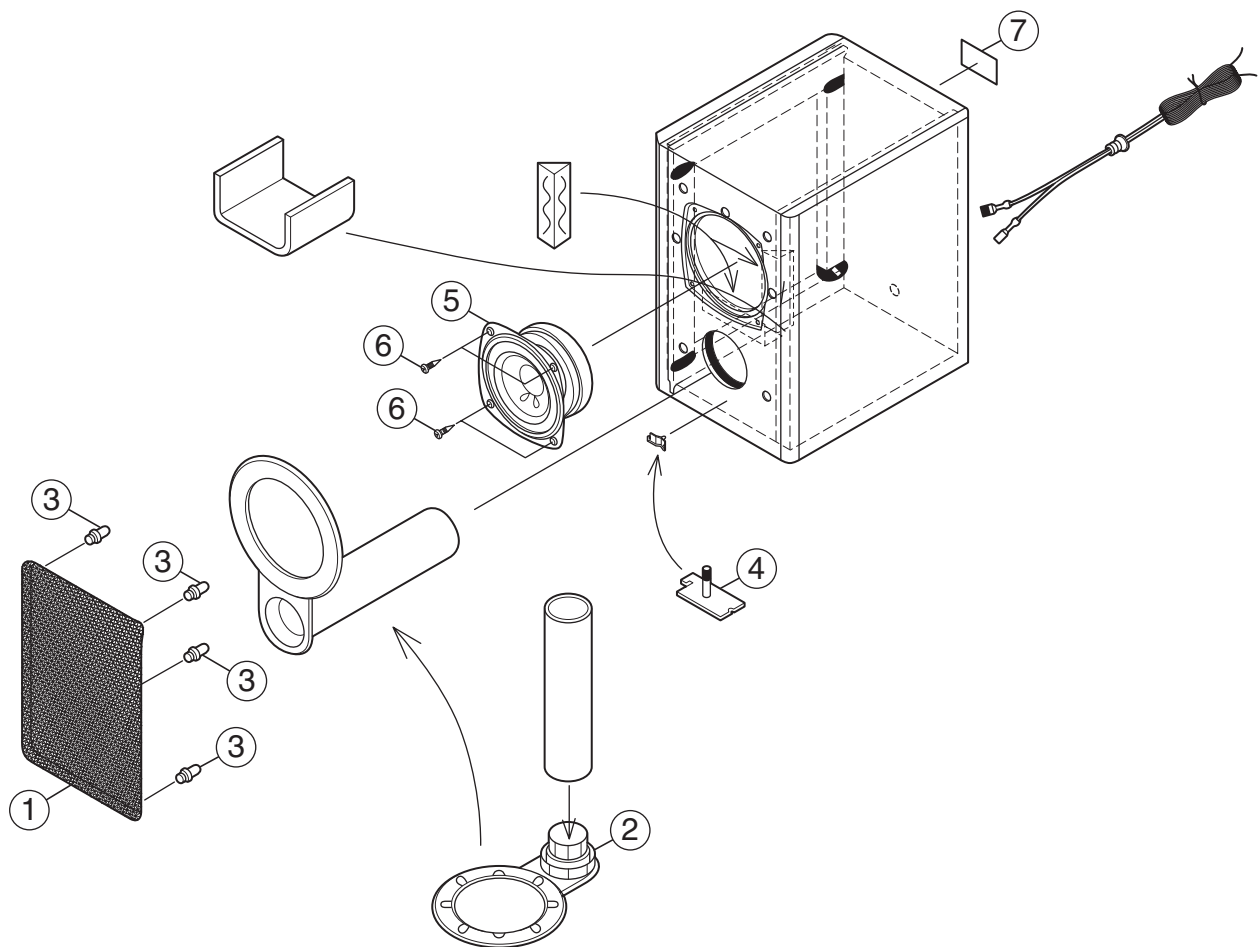
## Block No. [M][1][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	GV10127-004A	FRONT PANEL		
2	GV40077-002A	JVC BADGE		
3	GV20202-002A	PUSH BUTTON		
4	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm(x2)	
5	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm(x2)	
6	GV30423-001A	LAMP CASE		
7	GV40384-001A	LCD FILTER		
8	GV30402-003A	LCD LENS		
9	GV30349-009A	SPACER		
10	GV30424-001A	DOOR HOLDER		
11	GV40393-001A	EJECT LEVER		
12	GV40377-004A	EJECT KNOB		
13	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm	
14	VKZ4323-202	SCREW	(x2)	
15	GV30421-001A	TENSION SPRING		
16	GV40394-002A	EJECT ARM		
17	VKZ4341-205	SPECIAL SCREW		
18	GV40385-001A	TORSION SPRING		
19	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x2)	
20	VKY4180-401	CASSETTE SPRING	(x2)	
21	VYH5601-001	GEAR		
22	GV40386-001A	DOOR SPRING		
23	GV20198-004A	CASSETTE HOLDER		
24	GV30403-002A	DOOR LENS		
25	VKL7850-002	EJECT SAFTY(R)		
26	VKW5258-003	TORSION SPRING		
27	QYSBSF3012Z	TAP SCREW	3mm x 12mm(x2)	
28	QYSBST3008Z	TH TAP SCREW	3mm x 8mm(x2)	
29	KSM-213CCMJ	CD MECHA ASSY		
30	GV30412-001A	PICK COVER		
31	LV42763-001A	INSULATOR	(x2)	
32	LV42763-002A	INSULATOR	(x2)	
33	GV40379-001A	CD M.HOLDER(L)		
34	GV40379-002A	CD M.HOLDER(R)		
35	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x4)	
36	GV40390-001A	SHIELD		
37	GV10134-003A	CD CASE		
38	VYH4769-002SS	GEAR		
39	GV40391-001A	CD DOOR SPRING		
40	GV40395-001A	LOCK LEVER		
41	GV40396-003A	CD EJECT KNOB		
42	GV20199-002A	CD DOOR		
43	QYSDSF2006Z	SCREW	2mm x 6mm	
44	GV40378-002A	CD LENS		
45	GV40423-002A	CLAMPER BRACKET		
46	LV33270-001A	CLAMPER		
47	VYH7313-005	P.C.MAGNET		
48	VKL7757-001	YOKE		
49	LV41741-001A	SPECIAL SCREW		
50	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x4)	
51	GV40392-002A	SHIELD		
52	E3400-431	SPACER		
53	GV10133-001A	BOTTOM CHASSIS		
54	QYSBST4006Z	SCREW	4mm x 6mm(x4)	
55	GV30404-001A	JACK HOLDER		
56	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm	
57	GV30405-001A	RADIATION		
58	QYSBST3012Z	SCREW	3mm x 12mm(x3)	
59	QYSBST3006Z	TAPPING SCREW	3mm x 6mm	
60	QYSBST3006Z	TAPPING SCREW	3mm x 6mm	
61	QYSBST3006Z	TAPPING SCREW	3mm x 6mm	
62	GV30408-001A	IC HOLDER		
63	GV30422-001A	SHIELD		
64	QYSBST4006Z	SCREW	4mm x 6mm	
65	QYSBSG3006Z	TAPPING SCREW	3mm x 6mm	
66	LV30225-011A	SPACER	(x4)	
67	GV10128-004A	REAR PANEL		
68	GV20221-003A	SIDE PANEL(L)		
69	GV20218-003A	SIDE PANEL(R)		
70	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x2)	
71	QYSBSF3010Z	TAP SCREW	3mm x 10mm	
72	QYSBSF3010Z	TAP SCREW	3mm x 10mm	
73	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x2)	
74	QYSBSF3010Z	TAP SCREW	3mm x 10mm	

△ Symbol No.	Part No.	Part Name	Description	Local
75	QYSBSF3010Z	TAP SCREW	3mm x 10mm	
76	QYSSST3008Z	SCREW	3mm x 8mm(x4)	
77	GV30406-014A	NAME PLATE		
△ 78	LV41843-001A	LASER CAUTION		
△ 79	QQT0396-004	POWER TRANSF	T 901	
△ 80	QMF51W2-R50-J8	FUSE	F901 0.5A AC250V	
△ 81	QMF51W2-6R3-J8	FUSE	F903 6.3A AC250V	
82	QUQH12-0411BJ	FFC WIRE		
83	QUQH12-0714AJ	FFC WIRE		
84	QUQH12-0909BJ	CARD WIRE		
85	QUQH12-0913BJ	FFC WIRE		
86	QUQH12-1022BJ	FFC WIRE		
87	QUQ110-1607AJ	FFC WIRE		
88	QUQ110-1607AJ	FFC WIRE		
89	E70891-001	CLASS 1 LABEL		
90	E3400-431	SPACER		

# Speaker assembly and parts list

Block No. M 2 M M



## Speaker

Block No. M[2]M[M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	J201XH3500B10	CLOTH FRAME	(x2)	
2	J200XH3000B00	FRONT PANEL	(x2)	
3	J282XH3000B00	LATCH	(x8)	
4	21302UXP510	JVC MARK	(x2)	
5	305J0XH300800	WOOFER	(x2)	
6	411B84012AB1	SCREW	(x8)	
7	6000XH35U00	RATNIG LABEL	(x2)	

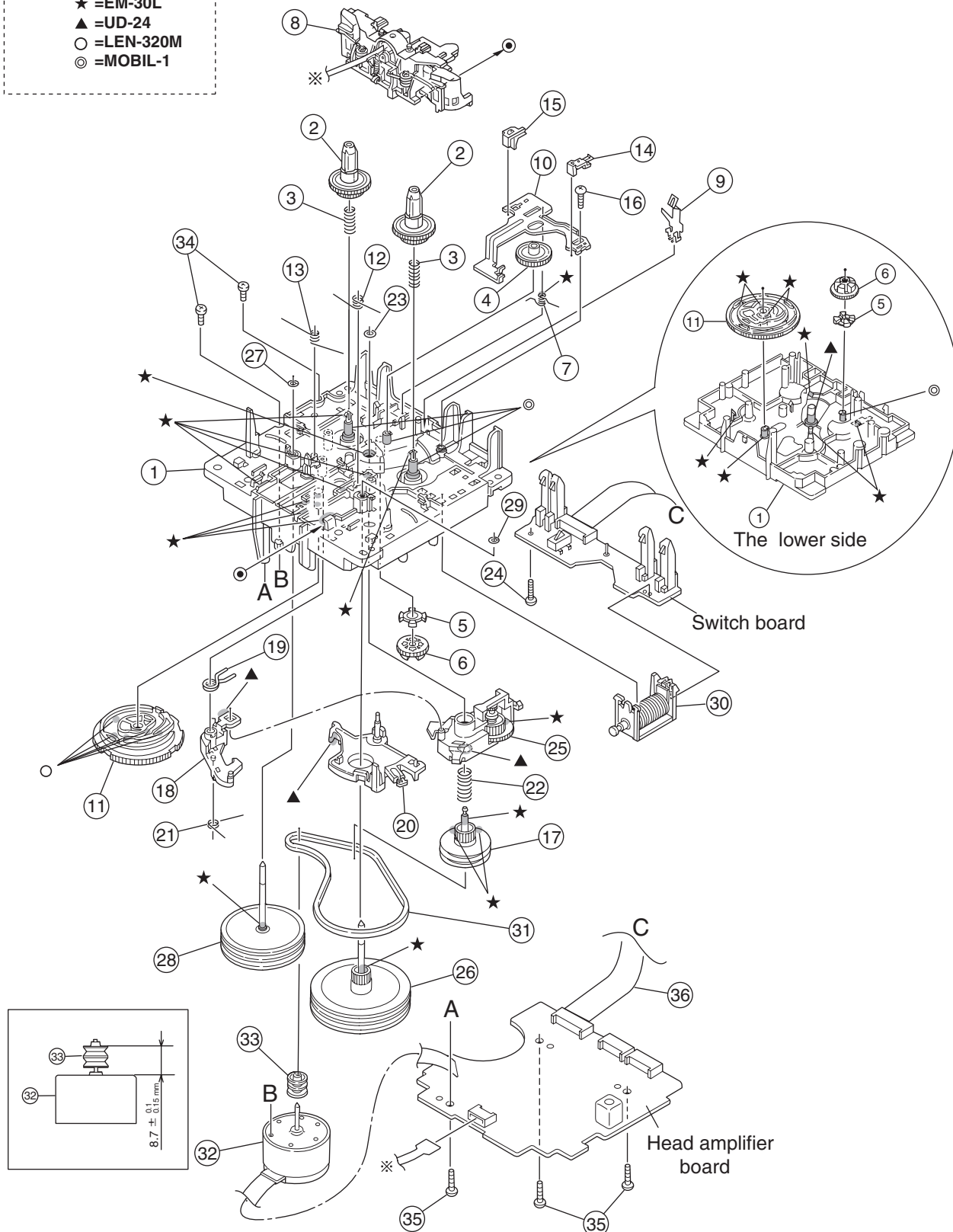
# Cassette mechanism assembly and parts list

Block No. M P M M

SLC-S302M

## Grease

- ★ =EM-30L
- ▲ =UD-24
- =LEN-320M
- ◎ =MOBIL-1



## Cassette mechanism

Block No. [M][P][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	VKS1165-00L	CHASSIS B. ASSY		
2	VKS2274-002	REEL GEAR	(x2)	
3	VKW5286-002	B.T. SPRING	(x2)	
4	VKS5559-001	PLAY IDLE GEAR		
5	VKS5595-002	BLIND		
6	VKS5560-003	FR IDLE GEAR		
7	LV42013-001A	EARTH SPRING		
8	SLC-RP4SVM	HEAD MOUNT ASSY		
9	VKY3149-002	CASSETTE SP.		
10	LV31786-001A	PLAY LEVER		
11	VKS1166-004	CONTROL CAM		
12	VKW5279-002	HEAD BASE SP(R)		
13	VKW5280-001	HEAD BASE SP(L)		
14	LV41584-001A	BRAKE(R)		
15	LV41585-003A	BRAKE(L)		
16	QYSBSF2005Z	SCREW	2mm x 5mm	
17	VKS5603-00G	MAIN PULLEY ASS		
18	VKS3785-001MM	FR ARM		
19	VKW5284-002	SWING SPRING		
20	VKS2278-003	TRIGGER ARM		
21	VKW5301-001	FR SPRING		
22	VKW5266-001	ELEVATOR SPRING		
23	WDL214025	WASHER		
24	QYSBSF2005Z	SCREW	2mm x 5mm	
25	VKS3786-00G	CLUTCH ASSY		
26	VKF3205-00B	F.WHEEL ASSY(R)		
27	WDL183425	SLIT WASHER		
28	VKF3207-00C	F.WHEEL ASSY(L)		
29	WDL173525-6	SLIT WASHER		
30	VKZ3174-00B	DC SOLENOID		
31	LV42836-001A	CAPSTAN BELT		
32	MSI-5U2LWA	D.C.MOTOR		
33	VKR4761-003	MOTOR PULLEY		
34	QYSPSP2604Z	SCREW	2.6mm x 4mm(x2)	
35	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm(x3)	
36	QUQH12-0906BF	WIRE		









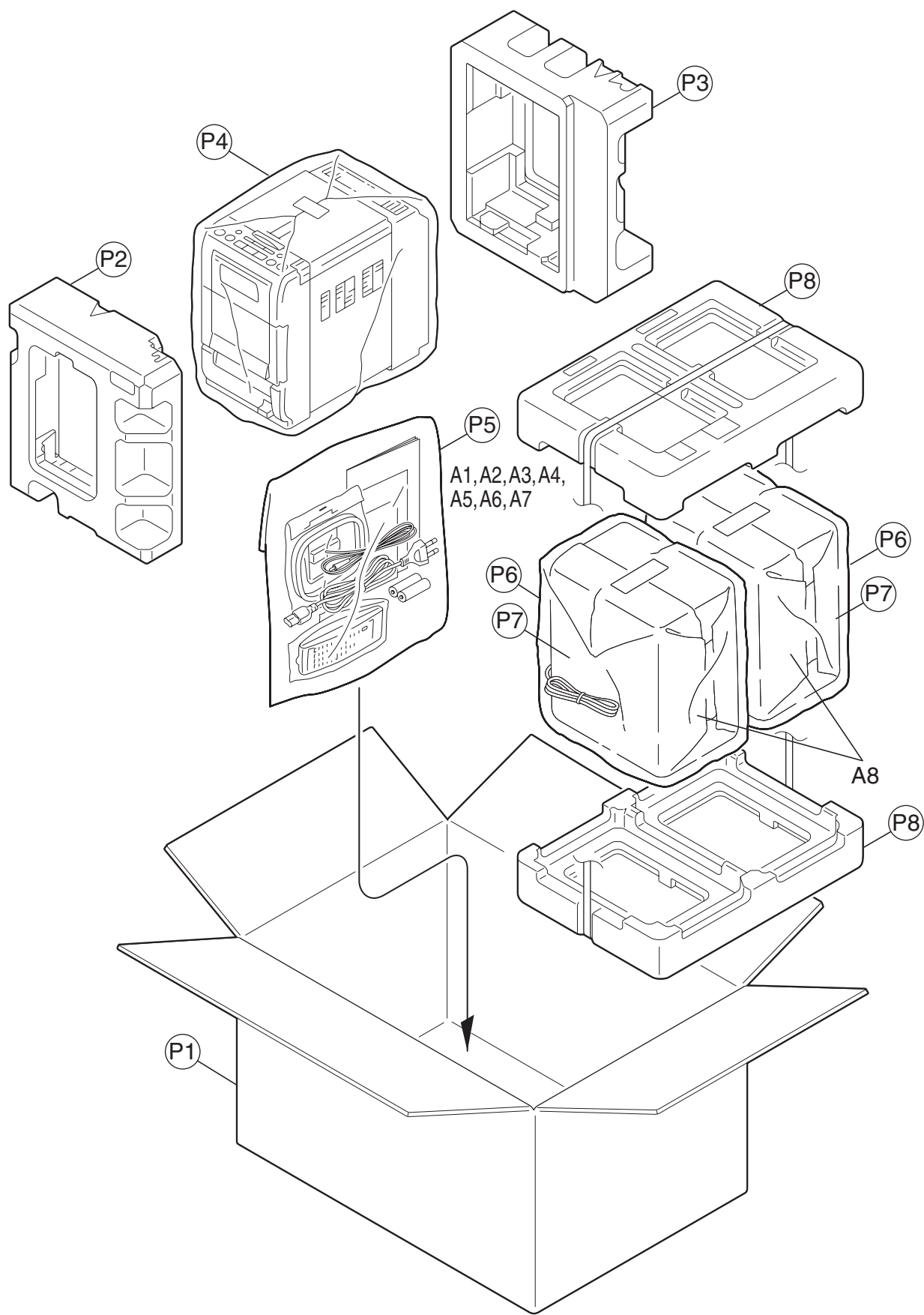




△ Symbol No.	Part No.	Part Name	Description	Local
R206	QRE141J-113Y	C RESISTOR	11kΩ 1/4W J	
R207	QRE141J-912Y	C RESISTOR	9.1kΩ 1/4W J	
R208	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J	
R210	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R216	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R221	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R301	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R302	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R303	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
△ R304	QRJ146J-101X	UNF C RESISTOR	100Ω 1/4W J	
R305	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R306	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
△ R310	QRJ146J-4R7X	UNF C RESISTOR	4.7Ω 1/4W J	
R313	QRE141J-2R2Y	C RESISTOR	2.2Ω 1/4W J	
R314	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R315	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R327	QRE141J-474Y	C RESISTOR	470kΩ 1/4W J	
R335	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R336	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R337	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R338	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J	
R339	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R340	QRE141J-681Y	C RESISTOR	680Ω 1/4W J	
R341	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
R342	QRE141J-243Y	C RESISTOR	24kΩ 1/4W J	
R343	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
R344	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R345	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R346	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R347	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
△ R353	QRZ9005-100X	FUSI RESISTOR	10Ω	
R371	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
R372	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R375	QRE141J-151Y	C RESISTOR	150Ω 1/4W J	
R376	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
VR31	QVP0008-203Z	TRIM RESISTOR	20kΩ	
VR37	QVP0077-103Z	TRIM RESISTOR	10kΩ	
L303	QQL244K-100Z	COIL	10uH K	

Packing materials and accessories parts list

Block No. M 3 M M



## Packing and accessories

Block No. [M][3][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
A 1	GVT0101-005A	INST BOOK	ENG	
A 2	QAL0457-001	ANT.WIRE		
A 3	QAL0014-001	AM LOOP ANT		
△ A 4	QMPH010-183-JD	POWER CORD(AST)	1.83m BLACK	
A 5	RM-SUXH35U	REMOCON UNIT		
A 6	-----	BATTERY	(x2)	
A 7	BT-56012-1	WARRANTY CARD		
A 8	UXH35K-SPBOX	SPEAKER BOX	(x2)	
P 1	GV30426-005A	CARTON ASSY.		
P 2	GV20200-001A	CUSHION FRONT		
P 3	GV20200-002A	CUSHION REAR		
P 4	QPC04504515P	POLY BAG	45cm x 45cm	
P 5	QPC02503515P	POLY BAG	25cm x 35cm	
P 6	70012006210	POLY BAG	(x2)	
P 7	71525007400	PACKING SHEET	(x2)	
P 8	7200UXH3000	CUSHION	(x2)	